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No. 1.

THE COURSE OF THE AGRICULTURAL DEPRESSION IN 1931-32.

1. - THE STRUCTURAL BACKGROUND OF THE DEPRESSION.

In 1931, the world economic crisis entered on its third year, and as it developed and spread to new countries and to branches of production and trade which, hitherto, had remained relatively immune, the nature of this phenomenon, unprecedented in its violence and its extension, became increasingly evident. Indeed, what at first may have appeared as a chance coincidence of cyclic depressions in both agriculture and the manufacturing industries, has now begun to assume a wholly different aspect.

After having followed the course of the world crisis for a period of now over three years, one is driven to the conclusion that, at least in so far as the fundamental developments of the depression are concerned, they cannot be fitted into any possible scheme of cyclic economic fluctuations. Cyclic fluctuations of various wave-length may, indeed, be responsible for the appearance of ripples on the surface of the main current of the depression, but the depression itself, which involves the headlong decline in prices and in economic activities, is a phenomenon of a different nature. The more one observes post-war economic developments, the more clearly one comes to realise the essentially structural nature of the crisis. Under many aspects, the economic organisation of the world to-day differs from the one which had existed before the war, and if economic life is to continue and to expand, it must adapt itself to changed conditions. The adaptation to changes in the structure of world economy is, however, a lengthy and difficult process, and while it slowly progresses maladjustments and friction are unavoidable.

Examples of structural transformations in world economy, which follow on great technical and commercial revolutions and mark the beginning of new stages in economic and social development, are naturally few and far between. Moreover, hitherto, they have generally taken a considerable time, and the great industrial and commercial revolution which brought the present economic and social organisation into being had extended, from beginning to end, over a century. It culminated in the emergence, from an agglomeration of essentially isolated national economies, loosely linked together by a certain amount of international trade, of a system of world economy based upon a world market. This system was in itself the creation of the new industrial technique and rested on the rapid transport of bulky commodities by rail and by sea, on large-scale

factory production for world-wide sale, on an international currency assured by the universal adoption of the gold standard, and on the free international movement of goods, capital, labour and enterprise. This economic system, which was evolved in the course of the prolonged depression of the closing quarter of the nineteenth century, by the time the World War brought it to an end, was still vigorously growing and extending its hold over new continents. Expansion was the vital need of this system, and the existence of a world market was for it a necessity and provided it with a safety valve by allowing any national overproduction to be distributed over a wide area and thus absorbed, without permitting local gluts to develop into prolonged depressions. The system of world economy was equipped with an industrial, commercial and financial machinery which it had evolved in accordance with its requirements, and which generally insured its reasonably smooth working. Barring certain exceptions in the case of industries of special national importance, the principle of international division of labour, ensuring possibly high net returns on the capital and labour invested in production, was followed, even if unconsciously.

In the present case, stupendous technical and economic changes were crowded in the space of less than two decades. The accident of the World War, following on the rapid succession of technical inventions, and itself giving a strong impetus to their development and their practical application, has so much precipitated a process which, otherwise, would have taken many years to develop, that the economic system was allowed no time in which gradually to assimilate the innovations.

In our review of the agricultural situation in 1930-31 (1), while discussing the origin and nature of the present world crisis, we have pointed out how far the world, since the war, had travelled away from its former economic organisation. Recalling what had been said there of the causes responsible for the depression, one can realise that, considered as a whole, they really involve very far-reaching changes in the structure of world agriculture, industry, trade and finance. In order that clearer insight may be gained into the developments which took place in the course of 1931-32, and which resulted from the gradual accumulation of maladjustments and strains in the economic system, a brief outline of at least the most important structural changes in world economy will be given below.

If we consider the present structure of world economy as a stage in the process of structural transformation and adaptation, we shall see that it had been reached by a process in which three successive groups of structural alterations have been superimposed upon each other. Indeed, in the pre-war economic system there were going on certain processes of change generated in the natural course of technical and economic evolution, which, in the course of time, were bound to modify its organisation. These changes, due to the normal growth of the social organism, became eventually incorporated in the post-war economic system. Superimposed upon them, and sometimes accentuating their

(1) *Monthly Bulletin of Agricultural Economics and Sociology*, January 1932, and "The Agricultural Situation in 1930-31", Chapter I.

effects, sometimes calling counter-tendencies into being, came the structural changes produced by the war and by its immediate consequences, political, financial and economic. Finally, during the post-war period, and especially since the beginning of the present crisis, new influences came into play, which, in their turn, brought about structural changes in the economic system.

Technical invention and the large-scale investment of capital in the industrial development of countries hitherto essentially agricultural, were the two features of pre-war economy which have, probably, exercised the most powerful influence upon the structural evolution of modern economic organisation. The development of the internal combustion engine, especially in connection with road transport and haulage, as well as that of the industrial utilisation of electrical power, date from the beginning of the twentieth century, but have been enormously stimulated by the war, which raised them to the position of decisive factors in the transformation of the economic system. When, before the war, the countries possessing large surpluses of capital invested it abroad, and especially in overseas countries and in the East, in the development of new industries based upon the natural wealth and the labour resources that were available there, they prepared the way for the shifting of the centre of gravity of industrial production and trade towards the East and the Western hemisphere, which was one of the effects of the war. Indeed, with so large a part of industrial Europe, which was still indisputably the "workshop of the world" in 1914, put more or less out of action by the outbreak of hostilities, and then having had to concentrate upon the production of war material and other necessities, the young industries of Japan, India and some other Eastern countries, not to speak of those of America, were given a powerful impetus and gained a footing in markets which, hitherto, had depended on imports from Europe. The war over, it was not easy for the former belligerent countries to regain their position in the markets thus temporarily lost, the more so that their competitive power was seriously weakened by the financial legacy of the war, which tended greatly to increase their costs of production. The war, indeed, greatly accelerated the process of growth of industries, the foundations of which were laid by the investment policy of the preceding decades, in other parts of the world. An example of this development was the iron industry of British India, the output of which had increased more than fourfold during the decade following 1914. The cotton industry of India and Japan is another. On the morrow of the war, the addition of the output of these newly developed industries in other parts of the world to the restored or even increased productive capacity of European industrial countries, was bound to create difficulties and to cause serious dislocations in the currents of international trade.

The development of the internal combustion engine in its application to road transport had manifold consequences, the combined effects of which are little short of revolutionary. It not only diminished the traffic on railways and their earning capacity, but had other important effects as well, industrial and financial. Financially, it deprived railway securities, one of the most important pre-war forms of capital investment, of much of their former attraction. Industrially, it diminished the need for new railway lines, which in many cases

could be replaced by roads, and thus reduced the demands made by railway construction upon the iron and steel industries. Besides, the development of motor transport brought to the front two industries which, hitherto, had been relatively of minor importance, but now came to occupy a place beside iron and coal both on the capital market and in the evolution of colonial and international policy. Mineral oil and rubber, as key industries in modern civilization, owe their position to the progress of the internal combustion engine.

Considered from the agricultural point of view, the rapid development of mechanical road transport was also an event of vast significance. Its two effects most important for the structure of the agricultural industry, were the shattering of the sheltered position formerly occupied by the production of fresh milk and some other highly perishable agricultural and horticultural products and the reduction it caused in the consumption of feed grains and hay. Indeed, districts in which the production of fresh milk was possible, before the advent of the motor-lorry or van, were confined to the immediate neighbourhood of towns or railway stations, and the quasi-monopoly of the farmers in these localities was for them a great economic advantage. Now, the motor-lorry has changed the position completely, by permitting these formerly sheltered branches of production to be extended over far larger territories, with the result that when, in their flight from the depression, farmers turned in their numbers to these branches, they also became increasingly affected by the crisis. At the same time, the substitution of the motor for horse power in the cities and the increasing mechanisation of the armies, could not fail to exercise its effects upon the demand for oats, barley and hay, thus contributing to the depression of the prices of these products.

Yet, in its revolutionising effect upon the agricultural industry, more important still was the development of the internal combustion engine in its application to purely agricultural work, in the form of the motor tractor. Combined with the harvester-thresher, the tractor, since the war, has been certainly one of the most important factors in the structural transformation of agriculture and in the creation of those maladjustments and dislocations which are largely responsible for the present depression.

The development of mechanisation in agriculture was greatly stimulated by the war, not only because of the technical progress achieved at that time, under pressure of military requirements, in the evolution of the caterpillar, but also because of the vital importance of assuring the highest possible output of agricultural products with a minimum expenditure of labour.

Combined with the disappearance of Russia, as an exporter of cereals, from the world market, and her replacement during and since the war by overseas countries, the progress of mechanisation was bound to cause serious dislocations in the organisation of world agriculture. Indeed, the structure of agricultural production and of trade in agricultural products was largely transformed by the fact that the place of Russia, whose production increased slowly and gradually, along with the growth of her agricultural population, and whose exports of wheat showed even a tendency to diminish with the expansion of her industry and the consequent increase in the demand of the

home market, was taken by the countries of the New World. Their agricultural organisation, largely based on production for export, on abundant land and on an extensive system of cultivation, was essentially different from that of Russia, and permitted them to extend the area of crops very rapidly. The two limiting factors in the extension of their agricultural production were prices and labour; and when the war raised the prices sufficiently to encourage production, and labour-saving machinery brought a solution to the labour problem, they were in a position to respond to the demands made on them by Europe almost immediately. The balance of production for the world market was thus suddenly shifted from the Old to the New World, a development which, welcome as it was under pressure of war-time emergency, was pregnant with dangers in the long run.

Indeed, though the cultivation in the Old World cannot be extended rapidly, it has the advantage that it increases apace with the growth of agricultural population and its diffusion by way of internal colonisation over hitherto unoccupied territories. It is, accordingly, generally able to consolidate and to hold the positions it has conquered, and the question of retreat as a rule does not arise. In the New World the position is different, and when, with the restoration of European agriculture after the war, the increase in production, which was achieved at short notice, began to be felt as an embarrassment, there arose a difficult situation. The greatest increase had taken place in what were practically single-crop regions in the United States, Canada, Australia and the Argentine, and a reduction in the wheat area was made difficult by the absence of any paying alternative to the cultivation of wheat. As a result, in the United States, for instance, any reduction that had taken place in the area sown to wheat between 1926 and 1929 was confined to the North-Atlantic and New England regions, with more developed and varied farming, while in the North-Central, South-Central and Western regions, in which extensive wheat-growing was the principal type of production, there has actually been an increase in the acreage. Here, with no alternative open to them, the farmers tried to make good the fall in prices by an increase in output. The position was essentially similar in the Prairie Provinces of Canada and in Australia, the latter having made a deliberate attempt to combat the effects of falling prices by an increase of production at lower cost per bushel.

Thus a situation was created in which the world market had to reckon with the continuous production of a considerable surplus of wheat under uneconomic conditions. This surplus, so far, it has not been possible to eliminate, with the result that large and increasing stocks have been accumulated in the principal exporting countries.

This change in the structure of agricultural production took place at a time when the demand for wheat and other cereals was in course of diminution, owing to changes in human consumption following the rise in the standard of life in the more advanced industrial countries, and to the falling-off of the demand for fodder due to the mechanisation of road transport. It in no wise contributed to the restoration of the balance between supply and demand, either in agriculture or in industry; it tended rather to make the position worse.

Since before the advent of mechanisation, the extension of the area under crops, in the New World as well as in the Old, proceeded apace with the growth of agricultural population, any increase in agricultural production, apart from fluctuations due to natural causes, was accompanied by an increase in consumption and by the creation of fresh purchasing power in the hands of the producers. The mechanisation of agriculture now permits an enormous extension of cultivation in the New World to be achieved almost entirely by the application of labour-saving machinery, and the increase in agricultural production is, accordingly, largely independent of that of agricultural population. The progress of agricultural production is divorced from that of colonization, and new tracts of virgin land can be, and actually are, ploughed up without the simultaneous creation of new settlements of productive population and of widely diffused purchasing power, which acts as a stimulant for all branches of economic activity. In so far as the growing mechanisation of agriculture in the New World reduces the need for labour and the opportunities of employment and profit of a number of people dependent on the land for a living, it tends actually to diminish that effective demand for consumption goods by a large mass of small consumers which is the real foundation of industrial prosperity.

Such a development in the New World cannot fail to have very serious effects upon the international movement of agricultural population, and, indirectly, upon that of industrial labour as well, and to exercise a very dangerous influence upon the economic and social balance of the world at large. While before the mechanisation of farming, overseas countries were interested in encouraging the influx of immigrants, especially belonging to the agricultural classes, now this policy of encouragement is reversed, and restrictions are imposed on immigration. In the social and economic balance of the Old World, as taking the long view — in that of the New World as well, the international movement of population is an exceedingly important factor, in so far as it permits the available agents of production to be combined in the most expedient way and potential pauperism to be converted into a producer of new wealth. Europe, the outlets for the surplus population of which are closed, is now placed in a position in which an increasing number of people depends on a diminishing income from the land. At the same time, the New World, the economic progress of which depends in the first instance on the exploitation of its own resources, which demands a combination of growing population and increasing investment of capital, needs a harmonious development of supply and demand as a basis for economic expansion. For it, the increase in population is an essential condition of progress, and in the long run it cannot escape from the effects of the growing disequilibrium between the production of goods and the increase in population which ensures for them an effective demand. In the economic structure of the post-war world the balance here is dangerously upset.

Another important aspect of the situation created by the development of extensive production in the New World, are its effects upon the position of the peasant farmer in the Old World.

The technical revolution in agriculture, which leads to the adoption of mass-production methods in largely mechanised cereal farms overseas, has an

influence upon the position of the peasant farmer, somewhat similar to that of the industrial revolution of the nineteenth century upon the independent craftsman. For a time, the peasant goes on growing the crops affected by oversea competition, at the expense of a lowering of his standard of life. In the process, he naturally reduces his effective demand for manufactured goods, with results detrimental to industrial production. If and when the limits of such compression of expenditure are reached, and competition still makes itself felt, there remains the alternative of either liquidating and selling out, or changing over to some other branch of agricultural production which enjoys a relatively sheltered position. Just as some craftsmen have been able to survive the industrial revolution by concentrating on the production of articles of more or less individual taste, in which industry mingles with art, so peasant farmers can escape competition by diverting their efforts to branches of agriculture in which mass production is either technically impossible, or economically does not pay. Dairy farming, the raising of animals, poultry, vegetable and fruit-growing have, indeed, largely provided a means of escape for the threatened peasants and small-holders, whose position as arable farmers became untenable owing to oversea competition. Such transition, on the large scale demanded by present conditions, depends for its success on the existence of a market sufficiently large and wealthy to absorb the increase in the finer and more expensive products of farming at remunerative prices. Now, however, the industrial depression causes so heavy and continuous a reduction in the purchasing capacity of the non-agricultural population, that conditions are by no means favourable to such a transition, and though it takes place on a considerable scale in certain countries and regions, it generally tends to depress the prices of the products the output of which has been increased.

Indeed, under present conditions, in the agricultural countries of Europe dependent on the export of their products, the peasant population, in spite of the drastic agrarian reforms carried out in their favour since the war, find their standard of life reduced to a level often actually lower than that of landless agricultural labourers before the war and the depression. In the cereal-importing countries of Europe, the great bulk of the peasantry are only enabled to make both ends meet, and that rather precariously, owing to high tariff barriers which keep overseas competition at bay. Yet, even in the countries where protection is most effective, the standard of life of the farmers is generally lowered. Indeed, the traditional agrarian organisation of Europe, on which for centuries had rested its social, economic and political system, is now passing through a period of severe trial. To save it from dissolution, energetic protective measures are being applied, which enable the peasant population to live, though on a reduced scale of well-being, and to go on producing, though their production, if left to itself, would be submerged by overseas competition. The peasant, for so long the most solid element in the economic system, is now faced with a problem of vital importance: that of finding ways of adaptation to the changed structure of the agricultural industry.

In all this revolution, technical and economic, which has upset the balance of agriculture all over the world, the development of the internal combustion engine

has played a part of enormous importance. Its influence can only be compared with that of the railway and the steamship upon the agricultural evolution of the latter part of the nineteenth century.

The modern development of electrical power is another technical factor the influence of which upon the structural evolution of the economic system can hardly be overestimated. The immediate effect of the extensive use of electricity for power purposes is that it makes industries increasingly independent of the proximity of coalfields, thus shattering the quasi-monopoly which had hitherto been enjoyed by certain countries or districts in this respect. When water power can be used for the generation of electrical current, the independence of industrial production and of the railways from coal becomes complete, and regions which had hitherto lacked the power necessary for their industrial development are enabled to appear on the world market as industrial producers. Though still relatively little used in farming, in the future development of agriculture and of allied rural and agricultural industries electrical power is also bound to play an important part. The extent to which the substitution of water power for coal in the production of electrical current progresses, is shown by the fact that the aggregate output of current generated by water power is estimated to have doubled between 1913 and 1925. Since then, many new powerful installations have been completed, so that in 1932 the output should be much larger than it was in 1925. According to the same estimate, the electrical power output of the installations existing in 1925 amounted to at least 60 milliards of kilowatt-hours, which represented the equivalent of 60 million tons of coal (1). While, in the nineteenth century, any extension of industry or of railways involved an increased demand for coal, the growing use of water power now makes industrial development largely independent of coal for the generation of energy. The dislocation this is bound to produce in an economic system of which coal and iron were the two principal mainstays ever since the industrial revolution of the nineteenth century had brought it into being, can easily be imagined. The great slowing-down in the construction of railways, to which we have referred above as a consequence of the development of mechanical road transport, has also deprived the iron and steel industries of one of the important stimuli to expansion.

At the same time, modern technical developments, especially in connection with the electrical industry and aircraft construction, have greatly increased the importance of non-ferrous and coloured metals. Indeed, oil-fields, coloured metal deposits and rubber plantations have acquired an altogether exceptional importance in the present-day economic organisation. As a condition of economic power in the modern industrial civilisation, their possession tends to approach in importance that of coal and iron deposits in the nineteenth century, not because these latter have become less necessary, but on account of the essential complementary character of these materials in the scheme of modern economic development. That this involves very important dislocations in the

(1) B. HARMS. *Strukturwandlungen der Weltwirtschaft. Weltwirtschaftliches Archiv*, 25 Band, Januar 1927, Heft 1, p. 10.

economic system and in international trade, hardly needs stressing. International relations and the trend of colonial policy of the industrial nations, which have to supplement their national resources by assuring regular supplies of one or more of these essential elements from outside, are, not unnaturally, seriously affected and modified by this factor

Along with these technical developments, which have so far-reaching an influence upon the structural evolution of the economic system, and which contribute to making the present economic organisation so different from that of the pre-war world, other developments should also be noted. Among these, the continual extension of the field of concerted and planned action in industry and trade is one of the most remarkable and the most important in its influence upon the structure and the functioning of the economic system. This growth of organised efforts on the part of various branches of production aiming at the deliberate control of their output and prices, is largely due to the very fact that, in recent years, so many shifts and dislocations have taken place in the economic life of the world, that some sort of order must be evolved out of the existing chaos, and economic activities must somehow be organised. The importance of these attempts, by the constitution of cartels and syndicates, as well as by international agreements between such organisations, aiming at combined industrial action, to create nuclei of "organised economy", is very considerable and tends to increase. Whether or not they are the forerunners of a new era, in which organised and planned economy will replace the existing system, still, at least theoretically, based on the principle of free competition, is a question which cannot be discussed here. But the part they play under present conditions, by applying the principle of organised control to an increasingly large sector of the economic system, has a very great interest for the student of the present world crisis. In fact, by assuring a certain control over an important section of the market, they reduce the scope of automatic action of its apparatus of adjustment, and tend to throw all the burden of disorganisation upon the unorganised branches of industry and trade, among which agriculture is by far the most important. As Prof. Wagemann says, though organised economy (*gebundene Wirtschaft*) aims at stabilizing conditions, in actual fact the control of certain branches of economic activities tends to increase the fluctuations in the unorganised branches (1).

The attempts at concerted action, by industries in the form of cartels and other similar organisations, and by labour in trades unions, are certainly not the products of post-war development, and date from the pre-war economic system; but since the war their development assumed far greater proportions and their influence upon economic life increased enormously. In Germany alone, cartels and similar organisations, which, before the war, numbered 500 to 600 in all, in 1925 had reached a total of well over 2,000, embracing all the most important branches of production. In other countries, even those where, before, the movement had made no progress, it has now assumed large proportions, with

(1) E. WAGEMANN. *Struktur und Rythmus der Weltwirtschaft*, p. 50.

the result that the field of "organized economy" now includes practically all the basic industries in the more important industrial countries of Europe. The branches so organised in Germany, France, Great Britain, Italy, Belgium, Czechoslovakia, Austria, Poland, Holland, Switzerland and some other countries, are the mining, metallurgical, metal-working, engineering, textile and chemical industries. The same applies to some other branches of production, such as the leather industry, the manufacture of foodstuffs, the electrical and some other industries, in certain countries in which they play an important part. By means of international agreements between national combinations, the scope of their action in certain domains is extended beyond national frontiers. It is estimated that, at present, of the total value of commodities exported abroad the products of cartelised industries, whose prices are subject to control, account for as much as 70 to 80 per cent. in Germany, 38.9 to 48.9 per cent. in the United Kingdom, 46.6 per cent. in France, 12.4 to 25 per cent. in Italy, 44.3 per cent. in Czechoslovakia, etc. (1). It is clear from these figures, how important are the inroads made by "organised economy" into the world market. From the point of view of agriculture, the least organised of all industries, and the most difficult to organise, this development has a considerable importance, the more so that the organised group of industries includes several in which the farmer is vitally interested, such as the engineering, metal-working and chemical, on the one hand, and the leather, foodstuffs and textile, on the other.

All the structural changes of technical and economic nature, of which the most important have been outlined in the preceding pages, would have been sufficient to produce great dislocations and serious strains in the economic system, even if they had not been complicated by the war and its consequences.

From the experience of the depression which accompanied the birth of world economy in the course of the latter part of the nineteenth century, one can gauge the extent and the seriousness of the difficulties and maladjustment unavoidable in a period of growth and structural transformation of economic life. If, however, the process of economic expansion, such as that in which national economies have been merged together in the vast whole of world economy, must be painful, much more so must be a development in the opposite sense, in which economic life, which used to have the world for its playground, is again being forced back into narrow national frontiers, and that at a time when it has to shoulder an unprecedented burden of financial commitments due to the war.

The tendency towards economic isolation, involving the gradual breaking-up of the world market, and the overburdening of productive activities with unproductive charges, the two intimately connected with each other, are, indeed, the outstanding characteristics of the present structural evolution of the economic system.

One of the immediate effects of the war, the economic consequences of which were most far-reaching, was the creation of a highly complicated network of political frontiers which have cut across long-established trade routes and have

(1) UDO-HORST BYCHELBERG. Merkmale der gebundenen Wirtschaft, *Wirtschaftsdienst*, Heft 41, 14 Oktober 1932.

seriously impeded the relations among the producers and their markets. In spite of the fact that the economic consequences of such extreme division of territories which have for centuries formed economically organic entities have been forcibly brought home to all concerned, nationalism has so far proved too strong to allow a certain measure of economic co-operation or solidarity to be restored for the common good. Indeed, the painfully memorable experience of the war and of blockade was responsible for the development, even in countries least adapted to it by their position and natural resources, of an exceedingly strong tendency to economic self-sufficiency. The largely unconscious economic internationalism of the pre-war world, with its tendency to an economic division of labour among the various nations, according to their resources, was now replaced by national particularism, aimed at self-sufficiency and bringing about an uneconomic distribution of productive activities. Thus, a system of world economy based essentially upon the consideration of relative costs and tending to produce maximum net returns on labour and capital, was replaced by an organisation the basic principles of which are largely non-economic. Political and social considerations, which, though they have never been entirely absent among the criteria of national economic policy, had not, before, generally been allowed to override the dictates of economic expediency, since the war have been decidedly on the ascendant.

From the agricultural point of view, the effect of this was that the European countries, in which farming had severely suffered from the war, since its termination have been endeavouring not only to restore, but even to increase their agricultural output, with a view to becoming, as far as possible, independent of foreign imports of the principal foodstuffs. The psychological influence of the experience of war-time and financial considerations were combined here with the traditional policy of maintaining a peasant population on the land, in spite of foreign competition and of the decline in the purchasing capacity of the home market for the products of sheltered branches of farming, with the result that European agricultural production increased behind specially erected tariff barriers.

While, since the war, economic activities tend increasingly to be confined within narrow national boundaries, the world stands in greater need than ever before of scope for economic expansion. The legacy of debts, reparations and other unproductive expenditure which the war left behind utterly upset the financial balance of world economy and has had a profound influence on the structure of international financial relations and, through them, on that of world production and trade.

Indeed, in the pre-war economic system, international borrowing was one of the most important instruments of economic progress, and the international liabilities incurred were, in their bulk, secured on the increase of productive capacity they enabled the borrowing countries to achieve. The borrowing countries were in the position of concerns issuing debentures with a view to increase their turnover and their profits, out of which part was earmarked for the interest and repayment of the loans thus contracted. Relatively to the national wealth and income, as well as to the Budgets of the States and of the municipalities

contracting such loans, their amounts and the annual payments were moderate, even in the most heavily indebted countries. These payments, in the case of all international liabilities, public as well as private, were, as a rule, made by exporting goods either to the creditor country direct, or to other countries, the existence of a freely functioning world market permitting such settlements to be made with the greatest convenience to the parties concerned.

Since the war, the problem of international financial liabilities has assumed a wholly different aspect. These liabilities have increased enormously; moreover, they were due to unproductive expenditure and had no counterpart in new sources of national income. Though non-economic in origin, they were bound to exercise a strong influence on the currents of world trade, which they tended to divert towards the creditor countries, and more particularly towards the United States, as the largest creditor of all. Payments had to be made in goods, and so they largely were, in spite of the strongly protectionist nature of the United States tariff, which, since the passing, in 1930, of the Hawley-Smoot Act, became a more formidable obstacle than ever to the regular settlement of their accounts on the part of the debtor countries. The effects of this tariff, combined, as it is, with the financial liabilities of Europe to the United States, on the development of the world economic situation have been exceedingly serious, since by it she made it practically impossible for her debtors to pay her in goods except at prices which made production unremunerative. Goods had to be exported by them to other markets, already glutted, and there sold for whatever they would fetch, while debt payments were effected in cash. This naturally resulted in the exaggerated use of gold in the settlement of international accounts, and tended to increase the already excessive concentration of gold in the creditor countries, as well as to shatter the foundations of world currency. Besides, the countries whose markets were glutted with goods which could not be sold in the United States, were forced to raise their customs tariffs and impose other limitations on imports. This development, as it spread and became intensified with the aggravation of the depression, tended not only to reduce the scope of operations of the world market, but altered all its essential characteristics as an automatic regulator of the economic system. With all its wheels clogged by an accumulation of measures taken in self-defence by every separate country, the automatic machinery of adjustment worked no more; neither was any system devised to ensure the co-ordination of national effort and to replace a freely working by an organised economy.

The heavy burdens imposed by the war upon the economic system had another very important effect upon its structure and its working. Indeed, the pre-war economic system possessed a far greater flexibility than the present one, since this has been made exceedingly rigid by the accumulation of fixed financial charges under which it is smothered. In the post-war economic system, the enormously increased Budget expenditure imposes an inordinately heavy burden upon all branches of production and trade, thus placing obstacles in the way of their adaptation to changing conditions. With a large proportion of the expenditure of the nation, as well as of the overhead charges of business,

consisting of fixed items of unproductive outlay, the margin in which it is possible to effect the necessary adaptations is relatively small, and the cuts which have to be made in it to obtain any considerable reduction in total costs are unavoidably large and painfully felt. We have already had the occasion to point to the effects of heavy taxation upon the competitive capacity of former belligerent countries on the world market, and the consequent dislocations in international trade and in world production. These certainly are not the only effects of the overburdening of Budgets with unproductive expenses due to the war, and it is true to say that in aggravating the depression and intensifying the sufferings it inflicts upon the world, especially in the form of unemployment, they are, perhaps, more injurious still, as well as more absurd. In fact, as the greater part of the margin of the costs of production which lends itself to adjustment consists of wages, the industry, unless it diminishes its output, is faced with the alternative of either lowering wages, or else rationalising the processes of production and thus diminishing the number of people it employs. The more highly organised is labour, and the heavier the proposed reduction in wages, the more difficult it is to arrive at a solution of the problem of adjustment by the first of these two alternative methods, and the more strongly the industry is driven towards the adoption of the expedients known under the name of rationalization. This is, indeed, very largely the position in the most industrially advanced countries, in which labour, in the course of modern social evolution, increasingly tends to become part of the " tied-up " sector of the economic system, to use the literal translation of the German qualification in the expression *gebundene Wirtschaft*. An increase in unemployment results unavoidably, and, in one way or other, by directly subsidising the unemployed, by organising public works for their relief, or by other means, the State is called upon to intervene financially, and its Budget is swollen by new expenditure. The increase in the Budget is naturally transferred to production and trade in the form of additional taxation, with the result that the fixed elements of their costs are again increased, and so on, *ad infinitum*. The absurdity of the whole situation is patent; and yet it is a standing characteristic of the working of the post-war economic system, top-heavy with the accumulation of liabilities due to the war and essentially unproductive.

This situation, bad as it has been always, since the beginning of the present depression is continually growing worse. In the face of huge standing liabilities, the receipts both of the Treasuries of the States and of private business tend to diminish along with the disorganisation of industry and trade and with the fall in commodity prices. While the charges borne by the Budgets of the State and of public bodies, by industry, trade and individual households remain nominally the same, their real weight is actually increased in proportion to the fall in prices. Even a very moderate Budget — an exceedingly rare phenomenon under post-war conditions — can become an unbearable burden when prices have fallen nearly 50 per cent. as they have done in the third year of the depression. Budgets loaded with unproductive expenses to an extent which made them excessive even before the depression, were bound to become absolutely unmanageable and insolvent, unless an appearance of solvency could temporarily be achieved by heavy

inroads upon the nation's capital resources or by the widespread abuse of short term credit facilities

What has been said here about public finances, largely applies to private liabilities, and especially to those arising out of borrowing by agriculture, industry and trade. Loans contracted under entirely different conditions, dating, in the case of mortgages and debentures, often to pre-war times, lost all connection with the circumstances under which they had been contracted or with calculations on which they had been based. Yet these, at least, possess the advantage of having been contracted under more favourable conditions, when credit was cheap. Post-war loans, made under conditions of an unprecedented dearth of capital, are a much heavier burden upon production and trade. Gross profits, especially in farming, have not infrequently fallen below the net interest of the debts, with the result that they cannot be met, and in the countries most affected by the crisis, arrangements have to be made by the banks in order to avoid wholesale foreclosures. For some time already the position with regard to the mortgage indebtedness of agricultural land has been exceedingly grave, especially in the countries of Central and Eastern Europe suffering from a chronic shortage of capital, where land credit has always been expensive and scarce. In 1931, an attempt was made by the League of Nations to organise an international land mortgage institution which would provide funds for the extension of their lending operations to the national land banks and help them to reduce the cost of long-term and intermediate credit to agriculture. The projected credit institution, however, has not so far materialised, owing to the financial crisis which broke out while the Convention was being approved and signed in Geneva.

This leads us to the examination of post-war changes in the structure of the currency system and of the money and capital market, and of their influence upon the working of world economy.

The outstanding feature of the post-war situation with regard to the organisation and functioning of the currency and credit system, not unnatural considering the condition of international indebtedness and the strain it put upon public finances, was the decisive importance which the balance of payments acquired as a criterion of monetary and credit policy. Indeed, it may be said that the imprint of this constant preoccupation with the problem of providing the wherewithal to meet foreign liabilities is borne by all the financial and commercial policy of the post-war period, to which it lends a decidedly mercantilist colour.

This mercantilist bias of modern policy in the field of international trade, currency and finance, apart from the constant pressure upon the balance of trade exercised by means of restricting imports, found perhaps its most definite expression during the period of stabilization. Indeed, when, between 1923 and 1927, European currencies, disorganised by the war and the subsequent wave of inflation, were again stabilised, and a general return to the gold standard or its practical equivalent was achieved, the dominant preoccupation of most countries was that their currencies should not be under-valued on the world market, since such under-valuation would increase the burden of their foreign liabilities. This in-

volved deflation and a rupture between the exchange value of the national currencies so treated and their internal purchasing power, and necessitated recourse to artificial measures for the support of exchanges which, if left to themselves, would have been brought down to their natural level by the currents of trade which the divergency of price levels would have produced. Had these currents been allowed to flow towards the markets to which importations were encouraged by the premium on exchange, no intervention on the foreign exchange market could have prevented the specific depreciation of the over-valued currencies. Accordingly, if the rates of exchange were to be maintained, as required by considerations of the balance of payments, trade currents had to be dammed, and the trade balance kept on the right side at all costs. Hence, trade restrictions due to financial considerations were added to the barriers erected by economic nationalism across the trade routes, and economic activities which alone could provide the means of meeting foreign liabilities, suffered unavoidably from the effects. The pre-war position was reversed. While, then, economic considerations were uppermost, and financial solvency was looked upon as resulting from economic progress, now the balance of payments, overburdened by unproductive charges, became an obsession, and the interests of economic development were relegated comparatively to the background.

The gold standard itself, though nominally restored, did not in effect provide world economy with an automatically working international currency. From what has been said above of the rupture between the internal and the external purchasing power of currencies which have nominally been restored on the gold basis, and of the measures used to maintain the rates of exchange in spite of the existing disparity of prices, it is obvious that the gold standard was not effective. The concentration of gold, mainly due to the post-war condition of international financial liabilities combined with the restrictions imposed upon the trade in commodities, would hardly have assumed its actual proportions, had the gold standard been allowed to function properly. As a matter of fact, this was not the case. While in the countries whose gold was being drained away, credit suffered a painful contraction and the deflation was aggravated, in the importing creditor countries the additional quantities of metal were actually hoarded, without being allowed to exercise their effect upon prices by an expansion of credit. Thus, not only was the world market not allowed to function properly by trade barriers, but it was deprived of its instrument of circulation, since the gold standard, though nominally restored, was not permitted to be effective and to help the restoration of lost equilibrium.

Great changes have also taken place in the structure and working of the money and capital market. Since the war, the money and capital lending activities have become largely decentralised, the position of London as the world's financial centre having been challenged, especially by New York. This change was important not only in that a large part of the business of international finance had passed to institutions which did not always possess the required experience and organisation, but for reasons even more fundamentally important. To ensure the financial service on an international scale, a country must possess large surpluses of capital which can be more profitably employed by being invested

abroad than at home, the home market being saturated with capital resources. This was for a long time what made London the world's financial centre, enabling it to ensure a steady flow of investment abroad, as well as to provide for its need of short-term financial facilities. A country, the undeveloped wealth of which still demands all that it can afford in the way of capital, and in which vast opportunities of investment at home compete for capital and credit with foreign borrowers, while under certain conditions it may be in a position to lend abroad on a large scale, is not adapted to the part of financial centre. The position of the United States is a case in point. Moreover, an essential condition of financial supremacy, without which no country can become, in the true sense of the word, a great international financial centre, is the possibility for the borrowers to pay their debts in goods. The highly protectionist policy of the United States, which, instead of having been mitigated since, by the war, it became a creditor instead of a debtor country, was actually reinforced by the Hawley-Smoot tariff of 1930, militates, therefore, against its really assuming the part of the world's money and capital market. Since the war the United States had, indeed, been in a position to lend abroad on a large scale, but under normal conditions, it is not so organised as to possess large surpluses of capital for investment abroad and in the struggle between the rival claims of home and foreign business upon the investing public, home investment naturally prevails.

One of the features of the post-war economic system, which distinguishes it profoundly from pre-war economy, is the great lack of confidence in the future, due to political and economic unsettlement which creates an atmosphere most unfavourable to the progress of business. While before the war, the economic development of the world had been assured by the investment of capital, now the capital market seeks to avoid committing itself for any considerable period ahead, and the sources of capital and long-term credit, already depleted by the war and inflation, have practically dried up. Except for brief periods of apparent revival of confidence, of which the most important had followed the stabilization of currencies and had lasted from about 1924 to the beginning of the present crisis in 1929, capitalists were shy of investing money, especially abroad, and money which used formerly to be invested sought safety, rather than profit, in bank deposits and short-term lending operations. As distinguished from the capital market, the money market, as a result of this tendency, overflowed with resources, and short-term credit was relatively readily available and generally cheap. Indeed, the banks found difficulty in employing their deposits profitably, the more so that the great diminution in the creation of fixed capital by the investment of savings naturally caused a reduction in the normal demand of industry and trade for short-term credit. With long-term credit facilities practically unavailable, and short-term credit being relatively plentiful and cheap, a highly anomalous and dangerous position was created, as both business and public authorities were encouraged, when hard pressed for money, to have recourse to short-term borrowing for meeting expenses which, if they could not be met out of current receipts, should have been covered by the issue of long-term loans or debentures. This, indeed, has happened in numerous cases and on a very large scale in the course of the last few years, and has largely con-

tributed to the development of the financial crisis, of which more will be said later.

This change in the structure of world economy, involving the practical cessation of investment and long-term credit, is essentially a passing phase of modern economic evolution, due mainly to the lack of confidence in the political, social and economic stability of the world. Yet this lack of confidence has lasted so long, has been so much increased by the present depression and has so great and disastrous an effect upon the international circulation of capital, that it has to be reckoned with as a powerful factor of disintegration in the economic system. Any attempt at dealing with the depression and reviving economic activities will depend for its success on the restoration of confidence, as this alone will enable capital once again freely to move from the financial centres to countries which need it for their development.

Summing up what has been said above of the structural transformations which took place in world economy since the war, we can see that they left practically no part of it unaffected, and necessitated re-adjustments and adaptations in every country and in every branch of economic activities.

Production, in industry, as well as in agriculture, had been affected by the stupendous technical progress of the twentieth century, a progress greatly accelerated by the war. The productivity of human labour had increased enormously, and, especially in agriculture, mechanisation having made the extension of production largely independent of the increase in agricultural population in overseas countries, agricultural colonization and the international movement of population have been impeded. New possibilities of industrial development have been opened, new products and new agricultural and industrial regions, have come to the fore, and the currents of world trade have largely changed their directions. Consumption had changed considerably, partly owing to the rise in the standard of life of the masses in the advanced industrial countries, partly as a consequence of changes in production and of the development of mechanical transport. The mechanism of exchange has also changed, especially in so far as the gold standard, though restored nominally, was not allowed to function and to have its effects upon prices. The money and capital market were affected by the lack of confidence in investment, by the shortage of capital due to its wholesale destruction in the war and during the subsequent inflation and by the slowness of its accumulation due to the extreme burden of unproductive charges borne by production and trade.

Considering the economic system as a whole, the most important structural change that has taken place since the war is the almost entire cessation of the free international circulation of goods and of the agents of production — capital, labour and enterprise — of which the free migration in search of profitable employment was one of the essential features of the pre-war economic system, as well as the principal factor of its ceaseless expansion.

While a high degree of flexibility was required of the economic system to enable it to adapt itself to these structural changes, it was precisely in flexibility that it was most lacking. Indeed, apart from the changes in production and trade, the economic structure of the modern world is distinguished by other

features, which contribute in making it rigid and unadaptable. Nationalism, with its particularist economic policy breaking up world economy into closed national units and destroying the world market, the heavy burden of war debts and other unproductive expenditure incurred in connection with the war; the haphazard intervention of Governments and private business combinations in the course of trade and the movement of prices; and, last but not least, the practical impossibility of achieving a better and more efficient distribution of population and of other agents of production among the different countries and the different continents, owing to the restrictions imposed on the movements of capital, labour and enterprise—all this unavoidably tends to make the economic system excessively rigid and to reduce its power of adaptation.

The self-adjusting machinery of the world market, which used formerly to ensure the balance of world economy and its expansion, had been put out of action, and the productive forces, confined within the frontiers of closed national economies and smothered under a load of unproductive expenditure, cannot be expected to bring the utmost returns, of which they are capable only in international co-operation.

It may be contended, as it often is now, that the machinery of automatic adjustment, which even before had not always worked smoothly and efficiently enough, has had its day and should now be replaced by a system deliberately planned and co-ordinated. The point may be argued, and there certainly are signs of a tendency towards the substitution of an organised for a free economic system, not only among theoretical thinkers, but in practical business and administration as well. But the world, so far, had not yet evolved a system of planning, or even of co-ordination, of economic activities, and what is actually being done is sporadic and confined within national frontiers, while its effects upon the world market are ignored. These, however, cannot be ignored with impunity; and if the path of evolution of our economic system is that which is traced by Sombart (1) for "late Capitalism", and leads through isolated national planning, it will unavoidably involve a severe lowering of the standard of life and in some cases sheer misery. The system of world economy, as it had been evolved in the nineteenth century, made the modern stage of economic civilization and comfort a possibility; and without sacrificing some at least of its conquests in well-being and culture, international economic co-operation, be it spontaneous or deliberately planned and organised, cannot certainly be dispensed with.

II. — THE FINANCIAL CRISIS AND THE WORLD MARKET.

In the course of the agricultural year 1931-32, the headlong decline of prices on the world market continued, bringing with it a serious aggravation in the economic position generally.

The Index Numbers of wholesale prices of agricultural products, which are available for certain countries, tend to show that the depression, which became

(1) W. SOMBART. *Die Zukunft des Kapitalismus*.

especially pronounced from 1930, was practically universal, though the extent of the fall in prices varied considerably from one country to another

General Price Indices of Agricultural Products

(First quarter of 1929 = 100)

Quarters		England	Denmark					
1929,	I	100	100	100	100	100	100	
1930,	I	100 0	86 0	52 2	57 1	68 7		52 3
	III	95 1	69 3	76 0	86 4	61 3		75 4
1931,	I	87 5	64 0	69 2	79 9	60 4		63 7
	II	85 4	64 0	66 7	81 4	62 4		65 1
	III	83 8	62 8	64 5	77 5	61 2		61 4
	IV	79 2	57 7	67 3	73 0	60 4		62 4
1932,	I	81 2	52 8	72 6	70 9	67 2		64 5
	II	79 2	49 3	67 3	70 2	62 7		65 4
		Netherlands	Poland	Argentina	Canada	U S A		New Zealand
		B A I.				B A I.	B L S	
1929,	I	100	100	100	100	100	100	100
1930,	I	89 3	78 4	89 5	99 7	95 6	92 3	90 5
	III	86 4	75 0	83 1	78 3	80 9	79 5	75 3
1931,	I	77 1	64 0	60 1	61 9	67 6	67 3	57 4
	II	78 2	71 4	59 6	60 2	63 7	63 7	56 7
	III	70 7	63 4	59 5	55 0	55 4	59 3	54 6
	IV	61 1	64 3	63 1	55 8	50 2	54 4	53 3
1932,	I	57 9	58 7	56 5	53 2	44 9	48 3	51 4
	II	54 6	63 7	56 6	50 8	41 2	44 5	—

With the two exceptions of Italy and Poland, the decline in 1931-32 was universal, and in the second quarter of 1932 the index numbers of prices of agricultural products in the exporting countries registered losses ranging from 43.4 per cent in Argentina to about 55-59 per cent. in the United States. Though these figures reflect the actual losses of the agricultural industry only in part, this part, if expressed in terms of national wealth and national income, represents an exceedingly heavy reduction. Thus, according to estimates recently made in Canada, the gross agricultural revenue of the Dominion fell from 1,826 million dollars in 1927 to 880.2 million dollars in 1931, a diminution of roughly 52 per cent. In the course of the year 1930-31, the net agricultural revenue of Canada was estimated to have fallen about 27 per cent. One can well imagine the disastrous effects of so heavy a diminution in the principal branch of production of agricultural countries on their public finance and their purchasing capacity as consumers of imported and home-made manufactured goods.

Indeed, the various aspects of the world crisis — agricultural, industrial and financial — were more closely interlocked in 1931-32, in the third year of the unprecedented depression, than ever before. The fall in agricultural prices in 1931-32, as before, was not an isolated phenomenon, but part of a general price movement.

General Index Numbers of Wholesale Prices.

(1913 = 100)

Years and months	Germany	France	England (B. of T.)	Italy (Bacchi)	U. S. A. (B. I. S.)	Canada	Australia
1913	100	100	100	100	100	100	100
1920	—	—	307.3	—	221.2	213.6	227.9
1925	141.8	—	159.1	592	118.3	160.3	169.5
1926	144.4	695	118.1	604	113.3	156.3	168.1
1927	137.6	642	141.6	501	136.7	152.7	167.0
1928	140.0	645	110.3	462	140.0	150.6	161.7
1929	137.2	627	136.5	417	138.3	149.1	165.7
1930	124.6	554	119.5	386	123.6	135.3	166.7
1931	110.9	502	104.1	330	104.6	113.1	131.3
1931 VII	111.4	500	102.2	321	103.2	112.0	131.3
VIII	110.2	488	99.5	322	103.3	110.8	128.6
IX	108.6	473	99.2	319	102.0	109.4	127.8
X	107.1	454	104.4	322	100.7	110.0	128.9
XI	106.6	447	106.4	320	100.6	110.3	131.3
XII	103.7	442	105.8	319	98.3	109.8	131.0
1932 I	100.0	439	105.8	317	96.1	108.1	130.0
II	99.8	446	105.3	311	95.0	108.1	133.2
III	99.8	441	104.6	315	94.6	108.0	132.2
IV	98.4	439	102.4	311	93.8	106.9	131.5
V	97.2	438	100.7	305	92.1	105.8	129.4
VI	96.2	425	98.1	297	91.5	104.0	127.8

This all-round decline in commodity prices in 1931-32 followed a line the downward trend of which had been definitely traced in the course of the preceding two years. Yet behind this decline there loomed now a darker and more menacing background of far-reaching disorganisation, which no country and no branch of production, trade and finance could possibly escape after years of maladjustment and strain.

The outstanding event of the year 1931-32, which has had severe repercussions in all branches of economic activities, was the outbreak, in the summer of 1931, of a financial crisis (1). From what has been said in the preceding section of the abnormal conditions which had prevailed for years in public and private finance, one could see that the strain to which the State Budgets, the credit machinery and the currency were subject, was excessive and tended rapidly to increase along with the aggravation of the depression. The financial consequences of the fall in prices, combined with the burden of public and private debts and with the widespread abuse, in the practical absence of capital available for investment, of short-term credit facilities, made for insolvency. The currency systems, which, though re-organised only a few years before, rested on precarious foundations owing to the almost universal rupture between the exchange value of money and its purchasing power on the home market, to the extreme concentration of gold in a few countries and to the fact that the nominally international

(1) For a fuller account of the financial crisis the reader is referred to the *World Economic Survey*, 1931-32, published by the League of Nations.

gold standard was not allowed to function properly, depended for their stability mainly on the avoidance of any form of inflation, and, therefore, ultimately on the balancing of the Budgets. By 1931, the strain on the credit systems of countries which have had recourse to short-term borrowing for meeting all kinds of pressing liabilities, often of a nature which made such financing risky in the extreme, began to tell. With the extension and aggravation of the depression in the lending countries, the renewal of credits was becoming increasingly difficult and deposits were being withdrawn. State Budgets in several countries, especially in Central and Eastern Europe, where the effects of the agricultural crisis were exceedingly acute, were completely upset, and deficits grew apace. Thus, when, in May 1931, the Austrian *Creditanstalt* became insolvent and had to be rescued by the intervention of the Government and of the National Bank, with the financial support of the Bank of England and of the Bank of International Settlements, this ostensibly local event had a wide international repercussion. Indeed, it exhibited clearly the precarious nature of the financial situation in Central and Eastern Europe, and as large sums have been placed or lent on short term in these countries, and more particularly in Germany and Austria, by the leading financial institutions in Europe and in the United States, the difficulties of the *Creditanstalt* were interpreted as a warning. The withdrawal of credits and of deposits from the banks of Central Europe became general. It affected, in the first instance, Germany, whose short-term liabilities during the preceding few years had grown enormously, and in the second half of June Germany was involved in serious difficulties owing to wholesale withdrawals. The situation culminated in July in the break-up of the Danat Bank, and emergency measures had to be taken to prevent the spread of financial panic.

As the financial disorganisation in Europe extended, the necessity of relieving the tension, at least for a time, became evident, and on 23 June President Hoover came forward with his proposal of a year's moratorium in the payment of reparations and war debts. Temporarily, this eased the situation, but it could not stay the spread of the financial crisis, as disorganisation had already gone too far, and the effects of the outbreak had to run their course. Indeed, in the focus of the disturbance financial disorganisation continued unabated, along with the aggravation of the economic and agricultural crisis in Eastern Europe. In the course of the agricultural year 1931-32, Austria, Hungary, Greece, Bulgaria and Rumania all appealed to the League of Nations with requests for financial assistance. The deficits of the Budgets of the countries of Central and Eastern Europe, in 1931-32, were as follows: (1)

	Deficit in millions of Swiss francs	In per cent. of expenditure
Austria (1931)	234	13.5
Bulgaria (1931-32)	34	14.8
Greece (1931-32)	16	2.3
Hungary (1931-32)	114	9.2
Poland (1931-32)	118	8.2
Rumania (1931)	197	17.1

(1) Table based on the figures published in the Report of the Stresa Conference (League of Nations, No. C. 666. M. 321. 1932, VII. C. E. U. E. 77).

In August 1931, with a view to staying the extension of the financial disorganisation in Central Europe, the foreign creditors of German banks and private borrowers agreed to a "standstill" arrangement, by which their credits were prolonged for another six months; an arrangement which was subsequently renewed, subject to partial repayment of the advances, when the original term came to an end in February 1932. Similar arrangements were made in the case of certain other countries as well, with the result that international credit operations in Europe had largely ceased, and the advances already made became in a large part frozen.

These "standstill" agreements were followed by the declaration by a number of States of moratoria with regard to the service of their foreign public debts. This was done, in the course of the year 1931-32, by Brazil, Bolivia, Hungary, Uruguay, Chile, Salvador, Greece, Latvia and Yugoslavia. The payment of foreign commercial debts was suspended, in the course of the same period, by Uruguay, Germany, Chile, Salvador and Yugoslavia. Thus, the whole system of international credit was affected.

Meanwhile, the repercussions of the financial collapse of Central Europe spread to other countries, and in the first instance to Great Britain. The London banks, while they have had their important advances in Germany and Austria frozen under standstill agreements, had very large short-term and sight liabilities to customers all over the world. Not only, thus, had London been affected directly by the losses suffered on the Continent, but, in its position as the world's banker, it had to cope with the rush upon the deposits it held on behalf of those who now had to call in their reserves. For a considerable time, beginning from the German financial panic in July, the London money market had to meet the withdrawal of deposits in increasing amounts, and on 21 September the convertibility of the Bank of England notes had to be suspended, Great Britain having thus abandoned the gold standard. This step on its part was followed by similar measures in a number of countries. Within the British Empire, Canada had already restricted the convertibility of notes in 1929, and in October 1931, it abandoned the gold standard completely; Australia and New Zealand had allowed their currencies to depreciate in 1930, and now went off gold technically. South Africa alone, being a producer and exporter of gold, kept to the gold standard till late in 1932, though in November 1931 it was forced to introduce measures of control over dealings in exchanges. In Europe, the three Scandinavian countries followed Great Britain in abandoning the gold standard, and so did Finland and Greece. Overseas, Japan and a number of Latin-American countries did the same.

The abandonment of the gold standard by Great Britain, in the midst of growing monetary and financial disorganisation throughout the world, was followed by the adoption in many countries of restrictions bearing on dealings in exchange or aimed at the maintenance of equilibrium in their balance of payments and at the prevention of capital export. Apart from the standstill agreements, the moratoria and the intensification of measures intended at a reduction of imports, which achieved an unprecedented development in 1931-32 under the pressure of the financial crisis, the measures aimed at the control of transactions in

foreign exchange, adopted by Denmark, Greece, Hungary, Austria, Bulgaria, Czechoslovakia, Estonia, Finland, Latvia, Lithuania, Yugoslavia, Italy, Norway, Rumania, Spain and Poland in Europe, as well as Persia, Turkey, the Argentine, Brazil, South Africa, Chile, Nicaragua, Uruguay and Ecuador in other parts of the world, put a new series of obstacles to international commerce and to the movement of capital from one country to another. To the difficulty of placing goods on a foreign market, surrounded by often prohibitive customs duties and other restrictions to imports, there were now added the complication and delay of obtaining payment for them, under a regime in which, as a rule, the necessary amount in foreign exchange could only be obtained for the payment of goods recognised as more or less indispensable. The control of transactions in foreign exchange often became an indirect but effective expedient for reducing importations with a view to keeping the balance of payments as far as possible favourable.

Direct restrictions have also developed enormously since the outbreak of the financial crisis, and certain forms of such restrictions, hitherto but little practised, received a great extension. Indeed, it was characteristic of the evolution of such measures in 1931-32, that, though increases in customs duties were numerous and widespread, on the whole they seemed to have somewhat receded to the background, as compared with the preceding years, and measures aimed at the direct quantitative limitation of importation would appear often to have been preferred. Indeed, it is sometimes claimed that by such measures alone a real control over trade and production can be achieved.

The systems of control of import trade most widely adopted in 1931-32 were contingents or import quotas and the licensing of imports, while in some cases monopolies and even prohibitions were introduced.

The system of contingents or import quotas, consists essentially in the fixation of the quantities of specified products to be imported for a certain period ahead. The details of the actual application of this system may vary considerably, and in some cases it takes the form of a permission to import a determined quantity of products subject to the payment of the general rate of duty or even of a reduced rate, while anything imported in excess of this contingent is liable to a surcharge. The system of contingents, in the course of the year, was widely practised, especially in France, where it is considered as probably the most effective expedient in the control of imports, and is largely applied to the importation of agricultural products. In two countries, namely Latvia and Turkey, the system of contingents applies to all imports. As a method based on the deliberate planning of at least certain branches of economic activities and on the consideration of the needs of the home market for a certain period ahead, at a time such as the present, when a struggle is going on between the principles of economic freedom and of organised economy, this development, therefore, is interesting.

The licensing of imports, which, in the course of the period under review, has had an extension even wider than that of the system of contingents, differs from the latter in that, while also intended at the deliberate control of the quantities imported and of their distribution over the different seasons, it does not involve planning for a fixed period ahead, but leaves to the organ of control to adapt the importations to the needs of the moment.

An interesting development in the actual organisation of international trade, due to the financial crisis and to the severe restrictions imposed upon dealings in foreign exchange, was the extension of agreements by which trade between the countries concerned could be carried on without involving, at every transaction, the payment of sums in foreign currencies. Arrangements of this kind take either the form of direct barter, each country transferring to the other agreed quantities of certain products required by the latter, or of so-called clearing agreements, by which payments to exporters are made in their respective national currencies by the banks of their own countries, and only the balance outstanding in favour of one of the two countries, when the accounts are closed, is actually transferred.

One can see, from the brief outline given above, what a complicated network of regulations and restrictions, either directly imposed on the trade in commodities, or indirectly affecting it through the medium of the control of dealings in foreign exchanges, was imposed upon international commerce in the course of the year 1931-32, on top of the barriers which were already in existence before. This, however, was not the only development of decisive importance for the evolution of world economy in the course of this period. Another event of outstanding importance was the change in the commercial policy of Great Britain, which followed closely upon its abandonment of the gold standard and led to the closing of what, hitherto, had been the only free market in the world.

For years, and more particularly since the beginning of the present world crisis, Great Britain had been the market on which converged the surpluses of production of other countries which, by the protectionist policy of the rest of the world, were excluded from other markets. The position of the national producer, in both agriculture and the manufacturing industries, in the face of his export markets closed against him, and of his own home market flooded with cheap foreign goods imported free, was becoming untenable, and a strong protectionist current of public opinion, which had been growing for some time since the war, was beginning to make itself increasingly felt. With the disorganisation of world trade, which resulted in a heavy fall in the returns of shipping, of foreign investment and of the other items of invisible exports, as well as in the diminution of the exports of commodities, public opinion tended increasingly to become conscious of the country as being in the first instance a producer, rather than a trader and a banker, and of the British market, supported by the development of Empire trade, as the natural preserve and the last stronghold of the national producer, which must be defended. The financial position, moreover, made the restriction in imports imperative. When, in the midst of the financial crisis, the real seriousness of the situation was fully realised, public opinion, faced with a fresh wave of trade restrictions abroad which followed on the depreciation of sterling and the consequent revival of British exports, rallied to the programme of the National Government which comprised tariff reform. The *Abnormal Importations (Customs Duties) Act* of 20 November 1931, which imposed duties of 50 per cent. *ad valorem* on a large number of articles, for a term of six months, with a view to reducing imports and improving the balance of trade, marked the abandonment by Great Britain of the traditional free trade policy. The *Horticultural*

Products (Emergency Customs Duties) Act of 11 December 1931, extended the protection to early fruit, vegetables and flowers. The *Import Duties Act* of 29 February 1932, which imposed an initial 10 per cent. *ad valorem* duty on all imported commodities, barring special exemptions and the commodities subject to special treatment under the two preceding Acts, as well as those already subject to revenue or other duties under earlier legislation, completed the conversion of Great Britain to protectionism. In accordance with the principle of avoiding the imposition of duties on foodstuffs and raw materials, practically all the more important agricultural products, however, were included in the list of exempted commodities, the tariff bearing with all its weight mostly on manufactured and semi-manufactured goods. Only in special cases duties were subsequently imposed on certain staple agricultural products, such as potatoes.

With the abandonment of free trade by Great Britain, an important advance was made in the transformation of the organic whole of world economy into a vast agglomeration of more or less closed national economies. The problem of adaptation to the drastic change in the economic structure of the world, begun since the war and now completed, has entered in a new phase.

In the course of this adaptation, international trade, the former currents of which have been cut across and impeded by all kinds of restrictions, would appear to be in the course of reorganisation. With the extension of bilateral agreements concerning trade generally, as well as of special barter or clearing arrangements, and with the spread of the system of contingents and licenses involving the definite allocation of certain import quotas to particular countries, attempts are being made to substitute a more constructive scheme for the purely negative expedient of raising customs duties against all imports. Yet one could hardly ignore the great political dangers of the discriminations involved in the development of this system; while the possibilities it affords for economic expansion, as compared with those provided by a free world market, are unavoidably limited.

Turning now to consider the conditions of international trade in agricultural products during the period under review, we can see that what has been said above of the development of restrictions other than customs duties, fully applies to agriculture. Indeed, by the summer of 1931, when the financial crisis gave a fresh impetus to the growth of trade barriers, the duties imposed on most agricultural products in the principal importing countries had already reached a level beyond which any further increase would have been practically useless, without, however, affording absolute protection against the penetration of foreign produce through loopholes which had to be provided for imports needed for special purposes. While, in July 1931, when prices of wheat in London and Liverpool, where the quotations give the nearest approach to what is conventionally referred to as the world market prices, averaged from 11.82 to 12.40 gold francs per quintal, the general rate of duty on wheat imported to Germany reached 30.93 gold francs per quintal, while in France it worked out at 16.36 and in Italy at 16.50 gold francs. In Spain, the duty was 17.00 gold francs, and that came into operation only when the prices of wheat in Castile reached a certain level, below which all importation of wheat was prohibited. These exorbitant

general duties were subject to modifications and reductions in certain specified cases, for wheat imported for special purposes; and these exemptions often provided loopholes for imports which, had the general tariff alone been in operation, would have been excluded completely. In the case of agricultural products, as in that of other commodities, it was felt that, in trying to restrict importations by mere pressure upon prices, effected through the usual machinery of tariff, one was leaving too much to chance and was failing to exercise a sufficiently complete control over the conditions of supply and demand on the home market. Accordingly, apart from the conclusion of bilateral agreements between particular countries, aimed at organising their mutual trade relations, there grew up, in the course of 1931-32, a whole system of regulations and arrangements the purpose of which it was to assure a complete control by the countries concerned over the quantities of foreign products admitted to their markets, as well as, in some cases, over the actual distribution of imports according to seasons.

Thus, to agricultural products were largely applied all the different measures referred to in the earlier part of this chapter, and especially the contingents or import quotas and the licensing of importations. Less frequent were monopolies and prohibitions, while agricultural products have played a prominent part in the list of commodities affected by some of the barter and clearing agreements. Though increases in import duties were numerous in 1931-32, they were mostly limited to markets of minor importance and have been somewhat relegated to the background of commercial policy.

As to the change in the tariff policy of Great Britain, it mostly affected, throughout the whole of 1931-32, the importation of manufactured and semi-manufactured goods, while the bulk of agricultural products was still admitted free of duties.

At the close of the agricultural year 1931-32, the position in the various countries was as follows. In Germany, apart from the existing tariffs, which imposed heavy duties on imports of agricultural products, the admission of butter and hops was subject to contingents, any quantities of these products imported in excess being liable to surcharge upon the general tariffs. In Austria, imports of sugar, butcher's stock, meat, dairy produce, fats, wine and foreign fruit were subject to licenses, while contingents were in force for wheat and meat from Yugoslavia, veal from Hungary and pork and veal from Poland. In Belgium, the system of contingents was introduced for cattle, meat and butter, and the importation of cereals, flour, meal, and wines was only allowed under license. Denmark applied the system of licenses to wines, spirits, and sugar, the exportation of the latter article being also subject to license. In Spain, contingents were in force for chilled meat, coffee, eggs, tobacco and fish, while exports of foodstuffs were subject to licensing. In Estonia, the State monopolised the importation of cereals, potatoes and pulse, of flour, honey, milk and dairy produce, eggs, coffee, cocoa, tea, vinegar, malt, hops, hides and skins, cotton and wool, while certain other products were subject to licensing. France introduced contingents for imports of cattle, meat, dairy produce, fish, poultry,

eggs, sugar, bananas, flowers and bulbs, timber and hides and skins. Special customs arrangements have been provided for the importation of fixed contingents of Rumanian wheat and maize and of Yugoslav and Hungarian wheat. The system of licenses applies to imports of wheat and wheat and rye flour. In Greece, contingents have been fixed for the importation of cheese, fruit, vegetables, fish and crustacea, sugar, wines and alcohols, cocoa, biscuits and bread, coffee, vegetable fats and eggs. Hungary applied the system of licenses to the importation of maize, cheese, apples, bananas, silk, hemp and other vegetable fibres, and in certain specified cases of malt. In Italy, contingents have been introduced for importations from countries having no special treaty arrangements of grapes, wines, barley, fish and malt. In Latvia, all imports were subject to contingents, the importation of cereals was subject to a Government monopoly and that of oranges was prohibited. In Holland, the system of contingents was applied to meat, veal, and butter. In Norway, the importation of wheat, rye, oats, barley and flour was a Government monopoly. In Poland, imports of cereals and flour, vegetables, fruit, hops, alcohol, fish, butcher's offals, and vegetable oils were subject to licenses, while special customs arrangements were provided for fixed contingents of apples, bananas, lemons, coffee, tea and cocoa imported by sea. In Portugal, the importation of wheat, wheat flour and bread is prohibited. In Rumania, contingents were in force for the importation of sugar. In Sweden, the importation of wheat, rye, wheat flour, rye flour and sugar was a Government monopoly. In Switzerland, imports of wheat and butter were subject to control, while those of flour were a monopoly. Contingents applied to eggs and certain other products. In Czechoslovakia, contingents applied to cereals, flour and butter, while certain other products of lesser importance were subject to licenses. In Turkey, all imports, including those of agricultural products, were subject to a system of contingents. In Yugoslavia, measures of control were applied to the exports of cattle, poultry, milk, eggs, and animal products. If to this we add the Government monopoly of all foreign trade, which exists in the U. S. S. R., we can see to what extent, in the course of the period under review, the international trade in agricultural products was subject to various methods of control, and how little scope there was left for the unfettered functioning of the world market under conditions of free play of supply and demand.

Indeed, especially since the conversion of Great Britain to protectionism, though, in the course of 1931-32, this had not yet affected her import trade in agricultural products, the expressions "world market" and "world economy" have largely ceased to be anything but conventional terms, to which there is no corresponding reality.

The extent to which the former unity of the world market was destroyed in the course of the last few years by the development of economic particularism, is clearly shown by the inordinate increase in the difference between the prices of the principal cereals in the chief exporting countries and on the representative protected markets in Europe. Indeed, if we compare the average prices of wheat, rye, oats and maize, as quoted in the exporting countries, on the free

market of London and Liverpool and in the principal protected markets of Europe, in January, 1927, and in January, 1932, we obtain striking results: (1)

	1927 Gold fr. per qu.	Per cent. variation between exporting and protected markets :	1932 Gold fr. per qu.	Per cent. variation between exporting and protected markets :
<i>Wheat :</i>				
Exporting countries ,	20 90	—	10 27	—
London and Liverpool ,	31 09	—	11.14	—
Protected continental markets	30 05	33.0 %	30.21	104.1 %
<i>Rye :</i>				
Exporting countries ,	22.39	—	11.98	—
Protected continental markets	28 20	25 5 %	17.10	42 8 %
<i>Oats :</i>				
Exporting countries ,	16 75	—	7.91	—
London and Liverpool ,	18 40	—	8.70	—
Protected continental markets	22 13	32.1 %	18 92	139 2 %
<i>Maize :</i>				
Exporting countries ,	13.19	—	6.12	—
London and Liverpool ,	17.28	—	6.89	—
Milan ,	20 52	52 5 %	10.69	172 7 %

This table gives a fair idea of the conditions in which the economic life of the world has to go on and to surmount the difficulties inherent in the post-war situation. Broken up by trade barriers into a large number of more or less effectively closed national economies, the system of world economy is largely put out of action. The agricultural industry in the exporting countries, the output of which is so little subject to deliberate control, and which, therefore, is so vitally interested in a world-wide market, capable of mitigating the effects of local over-production, naturally feels these changes in the structure of world economy very deeply and painfully. As we shall see in the following section of this chapter, the year 1931-32 was a period during which the agricultural industry of the world had been struggling with a continuous contraction of its markets, which affected more particularly its finer products and was mostly due to the aggravation of the economic situation generally and to the diminution in the purchasing capacity of the consumers.

III. — AGRICULTURAL CONDITIONS IN 1931-32.

The problems which confronted the agricultural industry all over the world in 1931-32 were essentially the same as those with which it had already been struggling during the preceding two years, but the aggravation of the economic

(1) The quotations are taken for the following markets and qualities: A. *Wheat*: (a) Winnipeg, Manitoba, No. 1; Chicago, H. W. No. 2; Buenos Aires, Barletta; Budapest, Tisza; (b) London and Liverpool, Manitoba, No. 1; Hard Winter, No. 2; Australian; (c) Home-grown, Berlin, Paris and Milan, B. *Rye*: (a) Minneapolis, Budapest, Warsaw; (b) South-Russian; (c) Hamburg, Amer. No. 2; Berlin, Home-grown; C. *Oats*: (a) Winnipeg, White No. 2; Chicago, White No. 2; Buenos Aires, La Plata; (b) La Plata; (c) Berlin and Paris, Home-grown; D. *Maize*: (a) Chicago, Amer. mix. No. 2; Buenos Aires, La Plata yellow; Braila, Danubian; (b) La Plata yellow; (c) Home-grown.

situation generally and the outbreak of the severe financial crisis in 1931 greatly added to its difficulties. The situation resolved itself into a continued decline in the prices of agricultural products, but the incidence of the depression had somewhat changed. Indeed, though wheat, by reason of its fundamental importance in the general scheme of world agriculture, still remained in the focus of the economic disturbance, it was not in wheat or in any of the other cereals that the fall in prices was particularly pronounced, but rather in the products of animal husbandry and of other branches of farming and horticulture catering mainly for the more refined consumption of the urban and industrial classes. The fall was also very severely felt in the branches of agriculture engaged in the production of raw materials for the manufacturing industries, such as cotton, flax, hemp, rubber, etc. In both cases, the aggravation of the industrial depression was responsible for a further serious diminution in the demand for these products, which, being highly elastic, tends to follow closely the changes in industrial conditions. The decline in prices, in the case at least of animal and horticultural products, had moreover been aggravated by the pressure of increasing supply, due to the farmers, in their flight from the heavily depressed arable farming, having largely turned to these relatively sheltered branches of agriculture.

Considering the conditions of supply and demand of the various groups of agricultural products, by which the price movements during the year 1931-32, were determined, we thus have to distinguish between two sets of factors affecting the formation of prices of agricultural products. On the one hand, there were the factors which can be referred to as specific or agricultural; on the other hand, the development of the general economic situation was responsible for bringing into play other factors, which tended to exercise an increasingly powerful influence upon the consumption of agricultural products and, therefore, upon the demand side of the price equation. The two sets of factors, besides, are by no means independent of each other in their action upon the market situation and prices, since any pressure upon prices exercised by either of these two sets of factors, and affecting immediately only certain classes of agricultural products, unavoidably makes its influence felt all over the market. Thus, a decline in the prices of the products of animal husbandry, due to the industrial depression and to the fall in the purchasing capacity of urban population, prevents the farmers from going over from the cultivation of cereals to the raising of cattle, to dairy farming, and so on, and thus ultimately aggravates the depression of cereal prices. It may be said that, ever since the beginning, in 1929, of the acute agricultural depression, the situation, both agricultural and industrial, developed in a way which made such an aggravation of the depression unavoidable; and from the latter part of 1931 the main pressure upon agricultural prices came from the industrial side, in the form of a continuous diminution of the consumption of those products of agriculture for which the demand, unlike that for cereals, is highly elastic.

Below, we will consider first the development of the situation in its specifically agricultural aspect, and later examine the effects upon it of the growing industrial depression.

Starting from wheat, which, as we have pointed out, continued to remain in the focus of the depression, we see, that, in 1931-32, the total area and production of wheat in the world had diminished slightly, as compared with the preceding year but they were still considerably superior to the average of the years 1926 to 1929.

	Wheat area in millions of hectares	Wheat production in millions of quintals
Average 1923 to 1929	96.4	973.6
1930-31	105.0	1,049.5
1931-32	102.8	1,012.0

The diminution in the area was far from universal, and the reduction in the world total (exclusive of the area and production of the U. S. S. R.) was accounted for mainly by reductions effected in the United States, Argentina and Australia, all the other principal wheat-growing countries having actually increased their wheat cultivation, as may be seen from the table below :

Area sown to wheat, in millions of hectares.

	1923-29	1930-31	1931-32
Europe (exclusive of U. S. S. R.)	28.1	29.8	30.7
Canada	9.2	10.1	10.6
United States	23.2	24.7	22.1
India	12.7	12.8	13.0
Argentina	7.4	7.9	6.5
Australia	4.9	7.1	6.0

In the U. S. S. R., the area sown to wheat in 1923-29 averaged 26.2 millions of hectares; in 1930 it was 33.9 millions of hectares, and in 1931 37.4 millions of hectares. Australia, which, until 1930, had deliberately followed the policy of countering the fall in prices by an extension of cultivation at lower costs per unit, now had reduced the area for the first time. Europe, however, had again increased her cultivation of wheat. The peasant agriculture of Europe, entrenched behind high tariff walls and restrictions, was fighting for its existence against overseas competition which might otherwise have brought about its destruction, as an element of fundamental importance in the political and economic system of the Continent. Thus, a considerable increase in the wheat area, amounting to nearly 18 per cent., but compensated by a diminution in that of rye, took place in Germany in 1931. Compared with the average of 1923-29, the area increased 26.5 per cent., the net increase in wheat being about 18 per cent. Poland increased its wheat area by about 9 per cent., and Rumania by about 12 per cent. Italy, though it increased its wheat area but slightly, had considerably augmented its production, which had increased about 15 per cent. in 1931, as compared with 1930, and about 9 per cent., as compared with the average for 1923-29. Other countries, with the exception of France, which showed a diminution of about 5 per cent. in the area sown to wheat, registered no important changes either way. On the balance, however, as we have shown, there was a marked increase in the acreage.

As to production, owing to the great inequality in the yield of crops in various parts of the world, increases in the area sown to wheat were not always accompanied by increases in production. In Europe, the crops were generally good, and production increased; the same applied to the United States, where, in spite of a diminution in area the production was greater than in 1930. But in Canada the crop was extremely poor, and production suffered a severe diminution; in India also the increase in area was accompanied by a considerable fall in the output. In the principal wheatgrowing countries the position in this respect was as follows:

Production of wheat, in millions of quintals.

	1923-29	1930-31	1931-32
Europe (except U. S. S. R.)	353.0	370.7	390.2
Canada	112.3	114.5	87.7
United States	221.6	233.4	245.0
India	90.8	106.1	94.5
Argentina	61.3	63.2	59.8
Australia	17.7	58.1	51.6

In the U. S. S. R., the production of wheat in 1923-29 averaged 193.3 millions of quintals, and in 1930, a year of very good crops, it rose to 269.2 millions of quintals. In 1931 the crops were bad, and the production was greatly reduced. Official statistics of the results of crops in 1931 have not been published.

European imports of wheat, always dependent on the production in Europe, fluctuate considerably from year to year, and the effect upon them of the restrictions imposed upon international trade cannot easily be isolated. In the course of the last few years, European net imports of wheat were as follows: in 1929-30, after a particularly bountiful harvest, they amounted to 123.3 millions of quintals; in 1930-31, after an average crop, they reached 152.0 millions of quintals; in 1931-32, with an increased area and a yield slightly above the average, the net imports were 139.5 millions of quintals.

Of these imports, in 1931-32, about 73 per cent. were accounted for by the four leading European wheat importing countries, the United Kingdom, France, Italy and Germany. The imports of these four countries in the course of the five last agricultural years are shown in the table below:

	1927-28	1928-29	1929-30	1930-31	1931-32
United Kingdom	57.9	54.5	55.8	61.1	65.1
France	12.8	14.5	3.0	16.6	21.5
Italy	23.9	23.9	11.5	22.1	9.1
Germany	24.1	21.2	13.0	8.5	6.3

Deliberate measures aimed at diminishing imports and protecting national production resulted in a heavy and sustained diminution of wheat imports in Germany and a great, though less steady, reduction in Italy. In France, production was below the average both in 1930 and in 1931, and imports had, therefore, increased. The increase in imports into the United Kingdom proceeded

apace with the diminution in the acreage and production at home, and, the British market still being open to the free importation of cereals, surpluses of wheat from all over the world tended to flow in its direction. In 1931-32, the United Kingdom still continued to play the part of shock-absorber on the wheat market, and with France, Japan and some other countries which have increased their imports, it helped the absorption of the wheat crop, though without allowing the stocks of wheat in the principal exporting countries to diminish to any considerable extent. Indeed, the commercial stocks of wheat in the United States and Canada, which, from 64.4 millions of quintals in July 1930, rose to 90.7 millions of quintals in July 1931, amounted to 87.8 millions of quintals in July 1932.

With regard to the movement of wheat prices, however, an interesting phenomenon of relative stabilization could be observed in 1931-32, the headlong decline to which they had been subject for two years having temporarily ceased. Indeed, the average prices of wheat, in gold francs per quintal, on some of the principal markets, were as follow :

	1928	1929	1930	1931	1931 July to December	1932 January to June
London and Liverpool, Manitoba No. 1	27.61	28.00	20.65	12.50	11.68	10.67
Winnipeg, Manitoba No. 1	25.79	25.55	18.01	10.70	10.10	10.20
Chicago, Hard Wheat No. 2	25.01	23.41	18.21	12.73	10.28	10.07
Buenos Aires, Barletta	24.35	22.01	18.32	9.33	8.82	10.01

This stabilization of wheat prices, which later development had proved to be only temporary, may have been due to some extent to the combination of slightly diminished world production with a certain increase in demand. Indeed, the standard of life of the mass of population in most countries, which had risen considerably in the course of the period preceding the present depression, must have been lowered by the crisis and unemployment of the last three years, and the process of change in the diet of the working classes, which involved a diminution in the consumption of bread, must have been largely reversed. Direct statistical proof of this return to bread is not available, but the combination of increased wheat imports with a considerable fall in the prices of dairy products, meat, bacon, vegetables, fruit and other constituents of a more refined diet in a country so heavily affected by the industrial depression as Great Britain, would appear to suggest this interpretation.

With regard to other cereals, the changes in the area under crops, in 1931-32, as compared with the preceding years, exclusive of the U. S. S. R., were as follows :

	1923-29	1930-31	1931-32
	* (Millions of hectares).		
Rye	19.1	19.9	18.9
Barley	27.5	30.4	29.1
Oats	42.2	41.9	41.3
Maize	75.4	79.3	81.6

Thus, except for maize, there was a slight diminution in the area sown with these cereals, as compared with the preceding year, but the reduction

was insignificant, and in the case at least of barley the cultivation was still in excess of the average for 1923-29.

The development of production of these four cereals is shown in the table below :

	1923-29	1930-31	1931-32
	(Millions of quintals).		
Rye	231.7	256.3	213.5
Barley	313.2	358.1	311.2
Oats	523.6	520.4	431.3
Maize	1,102.3	944.0	1,103.0

The output of maize had increased, as compared with the preceding year, while in the other crops there was a diminution compared with both 1930-31 and with the average production for 1923-29.

The price movements of the four cereals were interesting in so far as they pointed to a certain stabilization in 1931-32.

	1928	1929	1930	1931	1931 July to Dec.	1932 January to June
	(Gold francs per quintal).					
<i>Rye :</i>						
Minneapolis No 2	22.05	20.01	12.41	8.06	8.66	8.72
<i>Barley :</i>						
Winnipeg, Western No 1	18.25	16.17	6.54	6.55	7.24	7.60
Liverpool and London, Canadian No 3	21.48	22.07	14.24	10.09	11.25	11.44
<i>Oats :</i>						
Chicago White No. 2	20.89	21.31	14.85	9.37	9.34	9.44
Liverpool and London, La Plata	23.56	10.09	10.87	9.44	10.08	9.44
<i>Maize :</i>						
Chicago, American mixture No 2	14.04	14.38	16.00	10.79	9.29	7.00
London and Liverpool, La Plata yellow	22.51	21.10	13.36	8.40	7.45	7.83

In the case of cereals, we are dealing with products for which the demand is exceedingly inelastic, and of which the supply is only partly subject to deliberate control. Changes in the demand for bread-making cereals, though they take place and exercise a profound influence upon the market, develop slowly and are to a certain extent cancelled out by contrary movements. Thus, while there had been, for a considerable time past, up to the present depression, a steady diminution in the *per capita* consumption of wheat in most industrially advanced countries, this diminution was partly set off by the increase in wheat consumption in other countries, in which increased prosperity meant the substitution of wheat for rye. With regard to the demand for feed-grains, the diminution due to the replacement of horses or other draught animals by mechanical means of locomotion, may be more or less made good by the development of stock-farming, and its repercussions upon the market may be mitigated. But, as a rule, the production of cereals is much more easily increased than diminished, especially when, as now, it largely depends upon countries in which there exists no alternative to their cultivation, and when in other countries it is mostly in the hands of numerous peasant farmers whose traditional

husbandry cannot easily be transformed at any time, and particularly during a general economic depression. A crisis of cereal farming, therefore, when it develops concurrently with an economic depression, is a stubborn and prolonged disease, with alternating periods of improvement and relapses, and it lends itself to treatment only slowly and gradually. In the complex structure of the agricultural depression, the cereal crisis, however, holds a place by itself. Indeed, it is the independent element of the depression, the one of which the origin is not due to any other of its many elements. Originally due to economic and technical developments which were part of a general movement towards economic expansion, it developed out of a process of growth which, by lack of co-ordination and by the accident of the world war, generated a crisis. The wheat crisis may truly be said to play a pivotal part in the agricultural depression, both because of its characteristic independence of origin, and because of the importance of wheat in world agriculture. In all the other agricultural products, of which the common characteristic is the relative elasticity of demand and the far greater adaptability of supply than in cereals, the depression is a secondary development, deriving either from the wheat and cereal crisis, or from the industrial depression, or from both. This, however, does not prevent the depression in these branches from having repercussions upon the primary factors from which it is derived.

Among agricultural products, there does not exist one that has escaped this secondary depression. Some of them, such as animal products, vegetables, fruit and generally articles of food were in growing demand for years, and when the depression in cereal prices made arable farming unremunerative, farmers began to pay increasing attention to these branches, with the result that their production increased apace with the aggravation of the crisis, while their consumption was already beginning to feel the effects of industrial depression. Here, the effect of the cereal crisis upon the field of secondary depression is evident; but throughout this wide field, which covers all branches of agricultural production either for direct consumption or for industrial use, the general economic depression, and especially the industrial crisis, makes its influence felt more strongly than any other factor.

Throughout the year 1931-32, the industrial depression had continued unabated, and the purchasing capacity of the urban and industrial population, as well as the demand of industry for raw materials of agricultural origin suffered a heavy reduction.

According to an estimate made by the *Institut für Konjunkturforschung* in Berlin, the world's industrial production had developed as follows since 1928 (1) :

1928	100
1929	107.8
1930	93.9
1931	82 -
Beginning of 1931	83.4
Beginning of 1932	75.2

(1) *Wochenbericht des Instituts für Konjunkturforschung*, No. 6, 11 May, 1932.

The output, compared with 1928, would thus appear to have diminished by 24.8 per cent.

The indices of production of the principal branches of industry in Germany, France, the United States and the United Kingdom are shown in the table below (1):

	Germany	U. S. A.	France	U. K.
1928	100	100	100	100
1929	101.8	107.2	100.4	106
1930	81.3	87.4	110.2	97.0
1931, 1st quarter	70.0	76.0	104.4	90.0
2nd quarter	71.8	78.1	101.3	87.1
3rd quarter	68.1	71.5	95.3	84.6
4th quarter	62.7	61.9	90.3	92.3
1932 1st quarter	55.0	62.5	77.5	90.1
2nd quarter	57.7	51.7	74.0	89.2

The decline in production was general, with the one slight exception of the United Kingdom, where, during the fourth quarter of 1931, industrial activities have been stimulated by the depreciation of sterling. The acute crisis over, the gradual appreciation of the currency tended to reduce the premium on exchange which British exports had enjoyed since the suspension of the Bank Act, and in 1932 there has been a slight reaction.

The diminution of economic activities was reflected in the continuous decline in the freight traffic of railways, which is shown in the table below for a number of countries (2):

Freight Traffic on Railways.

	1929	1930	1931	1932 (6 months)
	(Millions of ton-kilometres per month).			
Austria	370	322	273	209
Belgium	699	595	502	375
Canada	1,831	1,010	3,117	2,796
Czechoslovakia	911	767	684	628
Germany	5,715	4,556	3,792	3,146
Hungary	519	462	392	280
Italy	1,017	1,024	893	811
Japan	1,066	932	875	853
Poland	2,160	1,768	1,771	1,141
Rumania	383	357	350	325
United Kingdom	2,570	2,424	2,226	1,933
United States	50,847	51,357	41,383	31,136

The volume of international trade, on the whole, had decreased, and its value had suffered a very severe diminution, with results highly unfavourable to the balance of payments and to industry, in which the margin of profit had been not infrequently reduced to vanishing point. The table below shows the diminution in the value of exports of a number of countries, as compared with 1929.

(1) *Monthly Bulletin of Statistics*, League of Nations.

(2) *Ibid.*

Index Numbers of the Values of Exports.

	1929	1930	1931
Argentina	100	64.0	67.2
Australia	100	93.6	93.6
Austria	100	81.5	59.6
Belgium	100	82.7	72.8
Bulgaria	100	96.8	92.8
Canada	100	74.9	51.2
Czechoslovakia	100	85.2	63.0
Denmark	100	91.3	77.9
Germany	100	89.7	72.7
France	100	85.1	60.7
Hungary	100	87.9	51.0
India	100	78.3	51.2
Irish Free State	100	94.8	76.9
Italy	100	79.5	65.0
Japan	100	68.0	53.2
Netherlands	100	86.3	65.3
New Zealand	100	80.0	62.2
Poland	100	86.5	66.6
Rumania	100	98.5	76.3
Sweden	100	85.5	61.0
Switzerland	100	83.9	61.1
Union of South Africa	100	69.2	18.7
U. S. S. R.	100	112.1	87.9
United Kingdom	100	78.3	33.3
United States	100	73.3	16.1
Yugoslavia	100	85.6	60.6

The fall in profits made by industrial, trading and transport companies during the last three years was striking. An investigation of the returns of 700 companies made by the *Economist* in Great Britain, gave the following results (1) :

Index Numbers of Net Profits of Companies.

	1924	1925	1926	1927	1928	1929	1930	1931
Manufacturing and mining	100	—	—	103	101	109	91	73
Transport, distribution and services	100	105	100	110	115	120	104	86
Operating overseas	100	110	107	103	101	95	67	—

The net profits of United States Corporations, which, in 1929, were 62.6 per cent. above those of 1924, in 1930 fell to 30.6 per cent. of the 1924 figure : a fall of 69.4 per cent. in one year (2).

(1) SIR JOSIAH STAMP, *Industrial Profits in the past Twenty Years*, *Journal of the Royal Statistical Society*, Vol. XCV, Part. IV, 1932.

(2) *Ibid.*

The situation was clearly reflected in the movements of prices of Stock Exchange Securities, of which Index Numbers are given below (1) :

Index Numbers of Stock Exchange Securities.

	Germany (1913-25 = 100)	U. S. A. (1926 = 100)	France (1913 = 100)	U. K. (1924 = 100)	Nether- lands (1921-25 = 100)
1928	112.1	151.3	115	142	114
1929	126.1	189.4	525	139	117
1930	101.0	140.0	111	112	83
1931	70.3	80.9	305	87	51
1932 (6 months)	—	15.8	255	80	32

Unemployment and reductions effected in wages and salaries with a view to reducing the cost of production and services were bound to diminish considerably the purchasing capacity of the masses of urban and industrial population, with results detrimental to the branches of agricultural production dependent on their prosperity for the disposal of their products.

The growth of unemployment in those countries in which the industrial organisation and the system of registration permit its development to be measured with a fair degree of accuracy, can be seen from the table below. On the whole, it is estimated that, in Europe and the United States, the total number of unemployed reached, by the middle of 1932, at least 25 millions of workers, who, with their dependents, probably represent a total population of over 100 millions of men, women and children (2).

Numbers of Unemployed.

	Germany (Total according to Labour Exchanges)	United Kingdom (Totally unemployed)	Italy (Totally unemployed)
December 1929	2,850,849	1,071,849	408,748
December 1930	4,383,813	1,853,575	642,169
June 1931	3,953,946	2,037,480	573,593
December 1931	5,668,187	2,262,700	982,321
June 1932	5,175,778	2,357,963	905,097

In the United States, the index of employment in manufacturing industries in December 1929 was 91.9; in December 1930, 75.1; in June, 1931, 73.4; in December 1931, 65.3, and in June 1932, 57.5.

The effects of so heavy a diminution in industrial production and in the earnings of those engaged in industry and trade upon the market of raw materials of agricultural origin and of those products of farming for which the demand, being highly elastic, depends very closely upon changes in the purchasing capacity of the consumers are obvious. The capacity of the market naturally diminished,

(1) *Monthly Bulletin of Statistics*, League of Nations.

(2) *Ibid.*

which severely reacted upon prices : and the fall in the prices of products of animal husbandry, gardening and other branches catering for the more refined urban consumer, which had become pronounced in 1931, was bound to recoil upon the cereal markets by discouraging the transition from arable to stock-farming and to intensive agriculture and gardening of suburban type, which had been going on ever since the war.

The effects of the crisis upon consumption are difficult to investigate statistically, owing to lack of data bearing upon retail trade. It is worth while therefore, to mention here the results of an investigation made in Germany by the *Institut für Konjunkturforschung* quite recently, and referring to May 1932. Pointing to the fact that, until a few months ago, retail trade had resisted the effects of the crisis, but that, lately, both its turnover and its prices had begun to be affected, the authors of the study give the following figures which show the fall in the value, the prices and the quantities sold :

	Per cent reduction January to May 1932	Per cent reduction between May 1931 and May 1932
<i>Articles of food, drinks, tobacco, etc</i>		
Value of goods sold	— 17.0	— 19.6
Prices	— 12.6	— 13.2
Quantities sold	— 4.9	7.3
<i>Articles of clothing .</i>		
Value of goods sold	— 22.2	28.3
Prices	— 16.3	— 16.2
Quantities sold	— 7.1	— 11.1

This little table, containing the results of a careful study in one particular country, in spite of its apparently local character, is highly interesting in that it shows the relation between the prices and the quantities sold, the heavy fall in the former helping to check the diminution in effective demand. Yet, in the course of 12 months, from May 1931 to May 1932, the quantities sold in the foodstuffs group diminished by over 7 per cent.

The industrial depression, which has exercised so adverse an influence upon the demand for articles of first necessity, especially in the course of the last year or so, for some years past has been felt by those products of farming which serve as raw material for the manufacturing industries. In 1931-32, the market for both foodstuffs and raw materials of agricultural origin suffered a severe aggravation of the depression. In fact, while cereal prices have been practically stationary, the full weight of the depression was felt by the branches in which the demand tends to fluctuate with the ebb and flow of industrial prosperity.

In the table below are shown the prices of the principal raw materials of agricultural origin for the last few years.

	1928	1929	1930	1931	July to Dec 1931	Jan to June 1932
(Average prices in gold francs)						
Cotton, Amer middling, per quintal, Liverpool	252.98	238.23	173.03	112.40	93.64	86.28
Flax fibre, Riga Z, K, per quintal, London	212.43	187.04	127.24	81.02	78.56	79.85
Hemp, Bologna T. C., per quintal, Milan	156.02	137.27	113.63	69.58	67.46	68.43
Jute, first marks, per quintal, London	91.13	81.26	52.75	38.87	38.91	31.71
Manila hemp, J 2, per quintal, London	83.36	91.75	65.07	43.07	39.80	33.70
Silk, Classica, per kg, Milan	59.84	54.13	35.98	25.85	23.95	20.19
Rubber, plant sheet, per quintal, New York	254.81	233.27	136.60	69.90	58.18	39.02

It may be seen that the fall in prices in the case of raw materials from 1928 to 1932 was even considerably more pronounced than it was in cereals. Indeed, cotton fell 65.9 per cent; flax fibre 67.1 per cent; hemp 56.1 per cent. jute 65.3 per cent; Manila hemp 59.6 per cent; silk 66.3 per cent. and rubber 84.7 per cent. between 1928 and 1932.

The fall in the prices of non-cereal foodstuffs, belonging to the group of agricultural products with elastic demand, was also extremely heavy.

The table below shows the price movements of the principal animal products on representative markets:

	1928	1929	1930	1931	Feb 1931	Jan. 1932
(Average prices in gold francs per quintal)						
Beef, Argentine, chilled, London	173.75	188.14	177.21	110.29	134.15	107.42
Beef, Australian, frozen, London	123.60	129.12	133.28	83.82	76.39	68.55
Beef, English, London	208.19	202.21	207.07	178.52	160.25	142.79
Mutton, N Z, frozen, London	183.85	179.67	160.24	118.47	109.93	85.19
Lamb, N Z, frozen, London	244.39	225.67	221.71	158.57	159.66	120.07
Pork, Chicago	108.88	117.25	105.25	70.40	60.22	43.85
Bacon, Danish, London	274.97	318.63	277.64	178.46	156.51	132.19
Butter, Danish, London	478.53	461.46	380.88	308.51	271.09	227.30

No less marked than in animal products was the fall in the prices of colonial produce, of which an idea is given by the following figures:

	1928	1929	1930	1931	July to Dec. 1931	Jan. to June 1932
(Average prices in gold francs).						
Sugar, Java white, per quintal, London	32.96	29.55	22.12	18.55	17.39	14.97
Tea, ord. Pecoee, Ceylon, per kg, London	3.23	2.83	2.27	1.54	1.22	1.15
Coffee, Rio No 1, per quintal, Rio de Janeiro	168.24	155.60	78.10	44.09	39.32	42.51
Cocoa, Trinidad, per quintal, London	180.68	155.76	148.41	103.84	93.09	83.78

Wine, olive oil, fruit and vegetables, have all been affected by the general depression, with the result that no branch of agricultural production remained immune.

Quite apart from the severe pressure the industrial depression exercises upon the demand for agricultural products and their prices, it tends increasingly to affect the agricultural situation in another way also. Indeed, with the progress of unemployment in towns and industrial centres, especially in those countries in which there either does not exist an organised machinery of unemployment relief, or where the financial position does not permit such relief to be given on a sufficiently large scale in the form of public work or subsidies, and where the Government and local administrations are compelled to meet the situation without incurring too great an expenditure, there are distinct signs of an exodus of urban population in search of means of subsistence on the land. When the problem of existence for millions of people in all the industrialised countries of the world is reduced to its simplest terms and actually resolves itself into the question of escaping starvation by employing one's enforced leisure in growing the food required for immediate consumption, such a return to the land and to farming is bound to take place. Its development, of which there has been considerable evidence in the course of the year 1931-32, is mostly a spontaneous process; but in some cases it is supported by the State and by municipal authorities, especially in the form of suburban land settlement of the unemployed on municipal land or on holdings specially acquired for the purpose. This latter form of land settlement became, from the autumn of 1931, one of the recognised expedients in the scheme of unemployment relief, which the German Government, in co-operation with municipal authorities, was forced to develop in the face of the relentless growth of the number of unemployed. In the United States, on the other hand, the return to the land, which had reached considerable proportions, was in the main a spontaneous movement. In other countries the same phenomenon, though perhaps less conspicuous and therefore not yet definitely recognised, must have also had a certain extension. This movement, at a time of industrial depression, is very natural in countries in which the bonds between town and country are still close, and a large part of the industrial population is recruited in the villages, where in their earlier life they had lived and worked on the land. In such countries, the ebb and flow of population between town and country is a natural process dependent on the fluctuations in industrial activity, and agriculture provides a sort of safety valve for the pressure of labour supply during the phases of the business cycle in which the demand for labour diminishes.

Under present conditions, this return to the land under the pressure of the industrial crisis and of consequent unemployment is a phenomenon which, though, perhaps, in its initial stages, this is not yet recognised, possesses a vast economic and social significance. Should the present depression continue and should this movement develop unchecked and uncontrolled, the world, and more particularly Europe, will be faced with a new population problem of enormous difficulty.

Though only too often considered, largely on the ground of the experience of past business cycles, as a temporary process of adjustment to changes in the

demand for labour, the present tendency to return to the land, whatever may be its actual extent, is a phenomenon of a different nature. In fact, just as the economic depression is often considered as a phase of the business cycle, while it is essentially structural in origin and nature, so this movement to the land, which may justly be called urban exodus, if judged by superficial analogy with similar phenomena observed in the development of past business cycles, may easily be mistaken for a passing stage of adjustment, while in reality it is the manifestation of a far-reaching structural process. The technical progress in all branches of production, on which the present development of rationalization is based, implies a reduction in the demand for labour which is not temporary and conditioned by a passing phase of the business cycle, but permanent. Cyclic changes, may, and certainly will, affect the labour market, but not to an extent which will permit the absorption of the mass of unemployed. The present volume of production can, indeed, be greatly increased without necessitating the re-absorption of more than part of the present mass of unemployed, and the permanent residue of unemployment will remain very large. Under such conditions, the return to the land must be looked upon in the light rather of a permanent ruralisation of a certain part of the industrial population of the more highly industrialised countries, than of a temporary expedient to tide over the depression. In the densely populated countries of old civilization, with peasant husbandry on small holdings predominant, this process of ruralisation begins already in some cases to press heavily upon the land. Combined with the closing of the former facilities of emigration to the New World, the return to the land of workers thrown out of work by the industrial crisis tends in certain districts to cause rural over-population and misery. People who used formerly to be producers and to make their demand for goods felt on the market are thus reduced to conditions of extreme poverty. As producers and as consumers they are eliminated from the system of world economy. Moreover, over-population is, socially and economically, an extremely dangerous phenomenon, in so far as it causes stagnation in economic and cultural activities, which can only develop where and when there is scope for expansion. The development of an excessive pressure of population upon the available resources, with its unavoidable poverty and degradation, must therefore be prevented, but this can only be achieved by international co-operation, based on the recognition of two maxims: first, that the present depression being essentially due to structural causes, there exists the problem of a permanent residue of unemployment to be dealt with, and, secondly, that this problem, both in its origin and its effects, has a world-wide importance and must be dealt with accordingly. National schemes of land settlement alone will not, as a rule, solve this problem satisfactorily and international co-operation will be needed to enable this mass of population not only to subsist precariously on the land in overcrowded villages, but to bring their weight, as consumers, to bear again upon the market.

GEORGE PAVLOVSKY.

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CO-OPERATION

Agricultural Co-operation in Poland.

I. — CHARACTERISTIC FEATURES OF POLISH AGRICULTURE.

Agricultural co-operation in the various countries is naturally adapted to the characteristics of the national agriculture in each case, and for this reason it appears essential here to give some account at the outset of these characteristics in the Poland of to-day.

An outstanding feature is the over-population of the countryside. The density of the population varies however in different parts of Poland, and while south-west Poland is the most populous, towards the north it shows a steady diminution. An excessive number of farms, too small in area to be self-sufficing, is the distinguishing mark of the more densely populated areas. The most conspicuous example is the province of Kracow, wherein in 1921 there were 291,000 farms, including some 52,000 independent farms with an area of over 5 hectares, while at the same date as much as 38.5 per cent. of the total agricultural area was occupied by dwarf farms of less than 5 hectares.

On the other hand in the province of Pomerania the general agrarian position resembles to a certain extent that of Denmark, although Pomerania has a higher percentage of farms with upwards of 200 hectares.

Speaking generally, large farms with more than 100 hectares, including the State forests, occupy 44.8 per cent. of the total area of Poland, and these are distributed fairly uniformly throughout the country. This class of farm derives, relatively speaking, the least advantage from the co-operative organisations, and for them the agricultural and trading societies are the most important.

The medium-sized farms, working from 20 to 100 hectares, are the best clients for all classes of co-operative societies, with the exception of the small Raiffeisen banks. These farms are very irregularly distributed throughout Poland, occurring in large numbers in the most northern districts, whereas in all the other areas they are only found exceptionally. According to the statistics of 1921, these farms occupied 9.6 per cent. of the total area covered by the returns.

Independent family farms of from 5 to 20 hectares are uniformly distributed throughout Poland and represent 30.8 per cent. of the total area, although in certain provinces they cover less than 20 per cent. while in two they account for more than 40 per cent. This particular class of farm is the main factor in the development of all kinds of agricultural co-operative societies.

The highest point of intensive cultivation is reached in the north-west, and agriculture becomes less intensive towards the south and east. The best farming is to be found in the province of Poznan, followed by the provinces of Lodz, Warsaw and Pomerania. The provinces of Kracow, Kielce, Lwow and Lublin are characterised by a less intensive type of farming, and in the remaining provinces and more particularly in those of Nowogrodek, Wilno and Polesia it is still less intensive. On the other hand the very small farms in Kracow, Kielce and Lwow are in some cases distinguished by a highly intensive farming. Thus attempts are made to develop stockbreeding, a certain proportion of the forage used being bought for the purpose, and in this way their need for the aid of co-operation is increased.

II. — LEGAL CONDITIONS IN WHICH THE CO-OPERATIVE MOVEMENT HAS DEVELOPED IN POLAND, AND THE INCIDENCE OF TAXATION ON THE SOCIETIES.

Since 1920 a law dealing with the co-operative societies and governing the whole co-operative movement has been in force in Poland. The statutory rules of each new society must be lodged with the Registration Court which is bound to be satisfied before registration that the rules are in accordance with the law.

In principle any individual or corporate body may be a member of a co-operative society, though the rules may provide for certain limitations to the full implications of this principle. The number of members may not be less than ten or, if the society is entirely made up of corporate bodies, less than three. Each member must hold at least one share, the effect of this provision being that all co-operative societies must be constituted on a basis of the shareholdings of their members, all shares being of equal value. Each member is entitled to one vote only whatever be the number of the shares held. His personal liability is proportionate to the number of his shares and cannot exceed this proportion, but it may be either limited or unlimited. In the event of the bankruptcy of the society, members may be required to pay supplementary quotas in proportion to their liability as measured by their holdings. After realisation of the assets, the members of the society may be called upon to pay additional amounts in proportion to their holdings, if so required by the situation as then revealed. Moreover, if after the lapse of six months from the date when the calculation was made, the deficit remains uncovered, the liquidator may legally constrain the members, as jointly and severally liable, to make good the deficit within the limits of their respective liabilities.

Each co-operative society is required to have an executive committee and a council and members of the executive committee are ineligible for service on the latter body. The general administration of the society is in the hands of the executive committee, while the duties of the council consist in the supervision of the activities of the committee in carrying out the business of the society, and in auditing the balance sheet at the close of the financial year before submission to the general meeting for approval. The council has the power at any time to relieve the members of the executive committee of their duties, and if, in accordance with the rules, an election is due, a similar course may be followed. Members of

the council are not eligible to receive allowances from the funds of the society

Supreme authority is vested in the general meeting, but an action in law can be brought against any resolution of the meeting which is not in accordance with the terms of the law and of the rules of the society. The law contains detailed instructions as to the form in which the annual statements should be drawn up, and makes provision for the audit of the business transactions of the society by public officials. Thus each society must submit to compulsory audit every two years. No special authority is made responsible for carrying out this audit, this duty being delegated officially to the special Audit Unions of the co-operative societies, which are groupings of societies resembling those in other countries, and are as a rule unconnected with their trading and financial central organisations.

When a society is not a member of an Audit Union, the Co-operative Council, which is a State body, exercising a general control over the whole co-operative movement, appoints the auditor. This Council gives authority to the Audit Unions to exercise their functions, it appoints private auditors, etc.

The Polish law on co-operation is characterised by a certain extremist bias and in a measure places the co-operative societies in opposition to capitalist organisations. As stated above, no individual member has more than one vote, even if he holds more than one share, and proxy voting is not allowed. The share dividend must not exceed by more than two per cent the highest discount rates of the Bank of Poland, in accordance with the law in force for any given year. On the other hand, the rules of the society may include clauses authorising the payment to members of a part of the revenue of their society, in proportion to the extent to which they have made use of its services. Thus members who have delivered milk to a co-operative dairy can obtain supplementary premiums for each litre of milk supplied, paid out of the net income of the society. This income may also be utilised for the benefit of the reserve fund or for purposes of public utility. In this way the importance of the part exercised by capital in the Polish societies is artificially whittled down, and for the most part public opinion is opposed to this attitude, which it considers prejudicial to the development of the movement.

Co-operative societies in Poland enjoy valuable privileges as regards taxation, but in order to acquire the right thereto, they must belong to an Audit Union approved by the State. Societies which fulfil this condition are exempt from income tax on their transactions with their own members, and it should be noted that in Poland such bodies as joint stock companies, etc., pay income tax in the same way as individuals. On the other hand they are expected to pay the tax at the normal rate on any business conducted on behalf of non-members, and all profits thus obtained must be allocated to the reserve fund of the society. Any society which fails to respect this regulation will be refused exemption from the tax on the returns arising out of business transacted with its members.

In addition the co-operative societies are only able to obtain trading certificates in a class inferior to that which non-co-operative businesses are required to possess; thus they are greatly advantaged as regards the payment of tax on the business turnover. The small co-operative credit societies which make loans

to their members are completely exempt from the payment of the tax, provided that the amount of such loans does not exceed 1,200 zlotys in each case. All other co-operative societies pay a tax on one fourth of their turnover, provided that the returns from these transactions with non-members are paid into the reserve fund. Failure to observe this regulation involves payment of the tax on half the volume of business.

III — THE BEGINNINGS OF THE CO-OPERATIVE MOVEMENT IN POLISH AGRICULTURE

In Poland four classes of co-operative organisation in agriculture may be distinguished, each of which has its special characteristic features, and its own particular underlying theory. These include the two great Polish Unions: the Union of the Polish Co-operative Associations (*Unja Związków Spółdzielczych w Polsce*), and the Confederation of the Unions of Agricultural Co-operative Societies of the Republic of Poland (*Zjednoczenie związków spółdzielni rolniczych Rzeczypospolitej Polskiej*); the Ukrainian Co-operative Societies, and the German Agricultural Co-operative Societies.

(a) *The Union of the Co-operative Societies in Poland and its underlying principles.* — The co-operative societies which are members of the Union for the most part carry out their work in the area that formerly belonged to Prussia and its basic principles have been developed there also. Polish society in this part of the country countered the policy of the Prussian Government with a theory of an economic organisation pushed to its extreme limits as the weapon that seemed likely to be the most effective. The attainment of the end desired would entail efforts to construct social life in Poland on the lines of the normal European pattern. To this end it would be necessary to build up a middle and particularly a lower middle class such as hitherto was non-existent in Polish Society, which consisted entirely of land owners and rural workers. Moreover there was a shortage of capital in Poland.

Given these conditions it was considered that a co-operative movement, embracing all classes and taking the form of substantial societies, specially in the field of credit, might play an important part and become more particularly an economic centre for the third estate. In addition it was felt that peasants possessing well managed farms, such being in the majority, should also be regarded as properly belonging to the third estate, but it was decided that first and foremost this third estate in the true sense of the term (that is to say, the artisan, small shopkeeper and small manufacturer class), should be recruited from among the peasants. Hence co-operative societies must be established, not only in order to meet the requirements of the farms, but also to have regard to the needs of the members of the family of the agriculturist and to provide the means required for setting up and carrying on small business enterprises in the towns themselves. In this way it will become possible to maintain the farm holdings in their integrity and to encourage the passage of the children of the agriculturists into the towns and so to reinforce the third estate.

Bishop Adamski, one of the founders and for several years President of the Union, thus defined its main objects:—

“ The Union must put itself in the forefront of the national economic life and make itself for the great mass of the population of Poland the predominantly Polish form of economic organisation ; it must become the organising force and the unifying economic factor for those classes of society which lie outside the purely capitalistic system, instructing every citizen of Poland in economic principles, in the methods of concentrating capital and in the theory of economic organisation ; it must encourage in the Polish people a spirit of enterprise and a capacity for effective action, assisting individuals to establish workshops for the production of all classes of goods, even on a small scale and providing material protection so that the small factories and workshops of Poland may develop and gain strength, thus laying the foundation for an independent national industry and commerce, supplying its necessities to an agriculture developed on normal lines.

“ Co-operation in Poland depends on the success of its efforts to make itself the most powerful and the most effective factor in the economic emancipation of Polish society. ”

Furthermore the following declaration was made by the Bishop :—

“ The Union, in developing this line of policy, should consider that one of its most important duties is to provide credit for the sons of the rural workers wishing to become artisans or to engage in trade, with the object of assisting them to establish workshops and business premises, and also to provide loans in order to make it possible for persons inheriting farms, which should be worked under a single management, to redeem the shares to which their brothers and sisters are entitled. ”

Although these views were expressed after the reconstruction of Poland and therefore at a time when the pressure of German influence was no longer felt, they have their origin in an attitude of mind which grew up in Polish Society during the period of the German domination.

The principles influencing the co-operative societies in the former Russian and Austrian territories now belonging to the Union were by no means so clear-cut as these but they were also imbued with the idea of the concentration of Polish capital and of the financial betterment of Polish Society and in particular of the third estate.

Since however after the reconstruction of Poland, foreign capital began to invade the Polish Banks, the idea of a constant struggle with an economically stronger foreign nationality inevitably persisted and is clearly manifest in the above quoted words of Bishop Adamski.

The Union was founded in 1925 and includes the four following Audit Unions :—

(1) The Union of the Co-operative Societies at Poznan (*Związek Spolek Zarobkowych i Gospodarczych*) established in 1871, the oldest union of co-operative societies in Poland ;

(2) The Union of Co-operative Societies at Lwow (*Związek Stowarzyszen Zarobkowych i Gospodarczych*) established in 1873 ;

(3) The Union of Polish Co-operative Societies at Warsaw (*Związek Spółdzielni Polskich*) established in 1918 and representing in a reorganised form another co-operative organisation established in 1903, called the "Co-operative Commission."

(4) The Audit Union of the Co-operative Societies of the Farmers' Clubs at Kracow (*Związek Rewizyjny Spółdzielni Kolek Rolniczych*), established in 1919

(b) *The Confederation of the Unions of Agricultural Co-operative Societies of the Republic of Poland.* — The Confederation is indebted for the principles which at present govern its policy to Dr. François Stefczyk whose work before the War in Galicia so largely contributed to the rise of a special agricultural co-operative movement in that part of Poland. The area of Dr. Stefczyk's activities lay in the countryside of Galicia, where the farms are pre-eminently small and poor, though the families of the peasants of the district were assisted by the emigrants, who supplied them with considerable sums of money.

In such conditions it was considered inopportune to establish large scale co-operative societies, as had been done in the former Prussian territory, and the institution of banks of the Raiffeisen type seemed to be more appropriate to the needs of the case.

Hence Dr. Stefczyk's work was mainly inspired by Raiffeisen's principles but his strong personality brought about a quite new conception of co-operation, which he succeeded in infusing into the agricultural co-operative movement in Galicia.

According to Dr. Stefczyk, co-operation is an independent social and economic movement, the object of which is to improve the social structure by inculcating a spirit of human solidarity, of mutual aid and collaboration, and of neighbourly feeling. He, however, had no desire to modify the general principle of the social structure of the country, as is shown by his own statement, which runs as follows:—

"It is not the purpose of agricultural co-operation gradually to transform individual holdings into large collective farms, the members of the societies as workers simply sharing in the division of the profits deriving from their joint labours. On the contrary, as regards private property, it is the purpose of co-operation to strengthen the productive capacity of the various farm-holdings and the social independence of their owners."

Stefczyk laid great stress on the necessity for character training among the members of the societies and the workers and held that the moral and material betterment of the members should be one of the principal objects of each co-operative society. The farms should be set free from the influence of capitalist agents acting as middlemen, and the general aim should be to introduce scientific methods into farming work, to put the farms on an industrial basis, and to increase profits. Following the principles of the Rochdale Pioneers, Stefczyk pronounced in favour of equality of voting rights in the co-operative society, and of the division of the returns in accordance with the profits which the members had themselves derived and not in proportion to their share-holdings. He also

advocated the institution of an intangible reserve fund and his principles received full consideration in the actual legislation on co-operative societies.

Agricultural co-operative societies in the former Russian territory before the war were in part based on the Raiffeisen system.

After the reconstitution of Poland most of the co-operative societies in the former Russian territory accepted the doctrines of Stefczyk. The Confederation of the Unions of Co-operative Societies of the Polish Republic (*Zjednoczenie Związków Spółdzielni Rolniczych Rzeczypospolitej Polskiej*) to which reference was made above, was established at a later date and was for part of the time under the direct management of Dr. Stefczyk.

Poland has a large number of agricultural co-operative societies, distinguished by the fact that, without taking part in the general agricultural movement associated with the agricultural confederations, they have made every effort to work in close connection with these bodies. The directors of the agricultural co-operative movement are at present in agreement with Dr. Stefczyk in their view that it forms an independent social and economic departure.

The Confederation of the Audit Unions of Agricultural Co-operative Societies of the Republic of Poland was founded in 1924 and is made up of the following Audit Unions:—

(1) The Audit Union of Agricultural Associations at Warsaw (*Związek Rewizyjny Spółdzielni Rolniczych*), which works in the former Russian territory and has the largest membership;

(2) The Audit Union of Agricultural Associations at Lwov (*Patronat Spółdzielni Rolniczych we Lwowie*), organised by Dr. Stefczyk in 1899;

(3) The Cieszyn Audit Union of Agricultural Associations (*Związek Spółek Rolniczych w Cieszynie*) which works in the area of the two districts to the south of the Department of Silesia;

(4) The Audit Union of Polish Raiffeisen-Stefczyk Associations at Katowice (*Związek Rewizyjny Polskich Spółdzielni Raiffeisena-Stefczyka*), which serves the 6 districts north of the Department of Silesia.

(5) The Audit Union of Agricultural Associations of Toruń (*Związek Rewizyjny Spółdzielni Rolniczych*), which operates in the territory of the Province of Pomerania, of Poznań and of the four districts of the Province of Warsaw.

(c) *The Ukrainian Co-operative Movement.* — The Ukrainian population largely consists of agriculturists and the political leaders ascribe particular importance to the organisation of co-operation. In this way they are brought into contact with the great mass of the people and are able to offer students, who have completed higher courses of instruction, employment, involving collaboration with the agriculturists and service as directors of the co-operative movement.

It follows therefore that the political factor plays an important part in the movement which has however preserved many sound financial features. Its most conspicuous characteristic lies in a tendency to set up small trading co-operative societies which meet the requirements of the small farms and farm households. These are rather of the nature of co-operatives for the supply of food stuffs than true agricultural trading societies. The leaders of the movement

make special efforts to stimulate and keep up a national spirit through these societies while at the same time raising their financial standard. There are two Audit Unions at Lwow, namely, the Audit Union of the Ukrainian Co-operative Societies (*Zwiazek Rewizyjny Spółdzielni Ukrainskich*) and the Ruthenian Audit Union (*Ruski Zwiazek Rewizyjny*). Their names reflect two political movements, the leaders of the first give the name of "Ukrainian" to their population while those of the second speak of "Ruthenian."

(d) *The German Agricultural Co-operative Movement.* — In certain parts of the former Prussian territory a considerable percentage, though everywhere a minority, of the population is still German and possesses its own co-operative societies, to which before the war the Poles were unwilling to belong and therefore formed their own independent societies. These conditions brought about the simultaneous and parallel development of two movements, a German and a Polish, which were completely independent. The Prussian Land Settlement Commission, charged with establishing German cultivators on the Polish territory that formerly belonged to Prussia, took particular trouble to organise co-operative societies for the settlers and thus also contributed to keep the two movements apart. At the same time German co-operation was mainly founded on Raiffeisen principles.

Up to the present the separation between the German and the Polish societies has been maintained. The main object of the German societies is to keep the German holdings at their present dimensions, to safeguard the German population from possibilities of assimilation and to take charge of its economic and social organisation.

There are three Audit Unions for the German Societies in the former Prussian territory, two at Poznan and the third at Grudziadz. There are in addition two German Audit Unions in other parts of Poland.

IV. — GENERAL STATISTICS OF CO-OPERATION IN POLAND.

The State Council of Co-operative Societies to which reference was made in Section II publishes general statistical tables for co-operation in Poland. The figures given are, however, too high for they include co-operative societies officially registered but not as yet in working order, and also co-operative societies which are in process of liquidation. For purposes of comparison, however, the value of the figures contained in the tables is as good as could be wished.

Table I gives an idea of the development of the co-operative movement during the period 1924-1930, which was on a quite considerable scale, more particularly from the point of view of the number of co-operative societies belonging to the Audit Unions which during the period increased by 100 per cent.

Table II contains figures showing the distribution of the co-operative societies under different categories as at the end of 1930. Among the agricultural societies the credit banks are the most numerous and the general co-operative societies for the supply of requisites come second on the list, though herein are

TABLE I. — *Number of Co-operative Societies in Poland.*

Year	Total Number of Co-operative Societies	Number of Co-operative Societies belonging to the Audit Unions	Percentage Ratio to the Total Number of Societies
1924	10,790	6,138	56.9
1925	12,409	6,417	51.7
1926	13,909	7,553	51.3
1927	15,729	8,857	56.3
1928	16,349	10,279	62.9
1929	17,476	11,239	64.3
1930	18,411	11,956	64.9

TABLE II. — *Number of Co-operative Societies at the end of 1930.*

Type of Co-operative Society	Total Number in Poland		Co-operative Societies be- longing to the Audit Unions	
	Number	Percentage	Number	Percentage
Co-operative Supply Societies:				
(a) Consumers' Societies	3,131	17.0	1,256	10.5
(b) Building Societies	904	4.9	238	2.0
(c) General Societies	119	0.8	39	0.3
Co-operative Credit Banks:				
(a) Agricultural	4,429	24.1	3,512	29.4
(b) General, workers, etc.	2,770	15.0	1,830	15.3
Agricultural Co-operative Societies:				
(a) General Societies for the Supply of Requisites	3,776	20.5	3,183	26.6
(b) Special Societies for the Supply of Requisites	145	0.8	63	0.5
(c) Dairy Societies	1,875	10.2	1,420	11.9
(d) Manufacturing Societies	103	0.6	84	0.7
(e) Subsidiary Societies	175	0.9	71	0.6
Other types of Co-operative Societies . . .	954	5.2	258	2.2
Total . . .	18,411	100.0	11,956	100.0

included 2,547 Ukrainian societies which are in reality solely concerned with the supply of food stuffs. It follows that the dairy societies should really be ranked second and the societies for the supply of requisites third only. The number of the other types of societies is relatively small.

Table III contains figures showing the development of the co-operative societies belonging to the Audit Unions during the period 1924-29 and is limited to such societies as have furnished returns. The number of the agriculturist members in 1929 was 1,625,000. The value of the shares held amounted to 114,000,000 zlotys and the amount of the reserve and special funds was also 114,000,000 zlotys, and the total shown in the final statement was 1,193 million zlotys, as against 133 million zlotys in 1924.

TABLE III. — *Development of Polish Co-operative Societies belonging to the Audit Unions during the period 1924-29.*

Year	Number of Co-operative Societies covered by Statistics	Number of Members in thousands		Members' Shares	Funds	Total shown by Balance Sheet
		Total	Farmers	in thousands of zlotys		
1924	1,171	- -	—	12,809	22,055	133,115
1925	5,977	1,764	765	28,678	31,023	250,260
1926	6,762	1,823	910	40,010	40,320	175,854
1927	7,995	2,174	1,270	64,235	55,731	600,492
1928	9,118	2,475	1,462	98,181	73,743	1,100,325
1929	10,392	2,731	1,625	114,125	113,620	1,193,354

Table IV contains a list of the principal Audit Unions in Poland and gives figures showing the number of associated agricultural co-operative and auxiliary societies.

The figures quoted in the above statistical tables will be discussed in detail in the sections which follow.

TABLEAU IV. — *General Statistics of the Co-operative Societies belonging to the Credit Unions as on 31 December 1930.*

Name of the Group of Societies	Co-operative Credit Banks		Agricultural Societies for the Supply of Requisites		Co-operative Societies		
	Agricultural	Non agricultural and mixed	General	Special	Dairy Societies	Societies for the transformation of agricultural products	Subsidiary Societies
I. — Confederation of the Unions of Agricultural Co-operative Societies (Zjednoczenie Związków Spółdzielni Rolniczych).	2,854	31	175	44	948	22	38
(1) The Credit Unions of Agricultural Associations at Lwów (Patronat Spółdzielni Rolniczych we Lwowie)	1,150	—	65	28	315	7	4
(2) The Cieszyn Union of Agricultural Associations (Związek Spółek Rolniczych)	54	6	1	3	3	—	12
(3) The Audit Union of Agricultural Associations at Warsaw (Związek Rewizyjny Spółdzielni Rolniczych)	1,320	11	103	8	615	11	8
(4) The Audit Union of Polish Raiffeisen-Stefczyk Associations at Katowice (Związek Rewizyjny Polskich Spółdzielni Raiffeisena-Stefczyka)	186	12	2	—	—	—	10
(5) The Audit Union of Agricultural Associations at Toruń (Związek Rewizyjny Spółdzielni Rolniczych)	144	2	4	5	15	4	4
II. — The Union of Polish Co-operative Societies (Unja Związków Spółdzielni w Polsce).	—	752	247	—	187	17	2
(1) The Union of Co-operative Societies at Poznań (Związek Spółdzielni Zarobkowych i Gospodarczych)	—	249	82	—	51	12	—
(2) The Unions of Co-operative Societies at Lwów (Związek Stowarzyszeń Zarobkowych i Gospodarczych)	—	179	3	—	—	—	2

Name of the Group of Societies	Co-operative Credit Banks		Agricultural Societies for the Supply of Requisites		Co-operative Societies		
	Agricultural	Non agricultural and mixed	General	Special	Dairy Societies	Societies for the transformation of agricultural products	Subsidiary Societies
(3) The Union of Polish Co-operative Societies at Warsaw (Związek Spółdzielni Polskich)	—	324	13	—	136	5	—
(4) The Audit Union of the Co-operative Societies of the Farmers' Clubs of Crakow (Związek Rewizyjny Spółdzielni Kółek Rolniczych w Krakowie)	—	—	119	—	—	—	—
Audit Union of the Ukrainian Co-operative Societies at Lwów (Związek Rewizyjny Spółdzielni Ukraińskich)	191	125	2,547	1	148	1	10
Ruthenian Audit Union at Lwów (Ruski Związek Rewizyjny)	25	3	127	1	14	—	—
Audit Union of the German Co-operative Societies in Poland at Poznań (Związek Spółdzielni Niemieckich w Polsce)	165	49	28	9	16	17	8
Audit Union of the Agricultural Co-operative Societies in Western Poland at Poznań (Związek Spółdzielni Rolniczych na Polske Zachodnia)	77	19	14	—	21	16	9
Audit Union of German Co-operative Societies in Poland at Łódź (Związek Spółdzielni Niemieckich w Polsce)	77	5	1	2	1	1	—
Audit Union of Rural Co-operative Societies of the Department of Pomerania at Grudziądz (Związek Spółdzielni Wieljskich województwa Pomorskiego)	62	4	40	3	53	10	4
Other Unions	61	842	4	3	—	—	—
Total . . .	3,512	1,830	3,183	63	1,420	84	71

(To be continued).

ZDZISŁAW ŁUDKIEWICZ.

MARKETING OF AGRICULTURAL PRODUCE

World Production of and World Trade in Table Grapes (*concluded*).

(b) *Importing Countries.*

1. — Europe.

GREAT BRITAIN AND NORTHERN IRELAND.

The English home production of table grapes is of subordinate importance only. The fruit is grown in the open and in hothouses; the former cultivation is mainly in the Channel Islands, the Guernsey grapes having a high reputation, the latter in the towns within the immediate neighbourhood of London, the valley of the river Lea being the centre of the glasshouse cultivation. In both areas the production has been in existence for a full century, but during the last 20 years there has been no great extension. In 1911-13 the yearly export from the Channel Islands to England was 18,000 cwts., and from 1927 to 1929 the export was each year 17,000 cwts. The figures of the hothouse production are not known; at most the whole of the home production might cover ten per cent. of the consumption.

In consequence of the great demand for fresh fruit there was a considerable expansion of the import of table grapes during the years 1860-1895. From that time, and actually up to the beginning of the world war, the imports previously remarkably uniform showed a slight decrease, so that the consumption per head in imported grapes fell from 3.1 lbs. (1900 to 1908) to 2.7 lbs. (1909 to 1913). The consumption of oranges fell during the same time from 14.7 lbs. to 13.5 lbs. per head.

The cause of this diminution is generally believed to have been the increased importation of bananas which rose by about 150 per cent. In the post-war time, especially during the last five years, the imports of all three kinds have risen: the banana import was higher by 100 per cent. in 1927-29 as compared with the pre-war time, the import of oranges by about 50 per cent., and the import of grapes by somewhat less than 50 per cent. The increase in volume of the table grapes import is the more remarkable, as it is combined with a much more pronounced increase in value. This is explained on the one hand by the rise in price of Spanish grapes which in these years were in great demand on the world market and held the leading place among the grape imports into England, on the other hand by the growing proportion of the Belgian and Netherland supplies of hothouse grapes. The English consumer is accustomed to a very high standard in table grapes, and for this reason the relatively cheap grapes of Spanish or French origin are not often to be found on the market.

In the international trade in table grapes Great Britain takes the second place among the importing countries. London is the port taking the largest imports, and from the docks the grapes are sold on commission to Covent Garden and Spitalfields. There are also direct imports to other ports along the coast. In examining the following figures regard should be had, in addition to the terri-

torial changes occasioned by the setting up of the Irish Free State to the increasing importation of overseas grapes, among which the South African grapes stand in the foremost place. These come on the British markets mainly during March when the season for Spanish grapes is quite over

Import of Table Grapes into Great Britain

	Average 1911-13	1928	1929	1930
Value in £100	7,523	20,178	20,177	18,415
Import in 100 cwts from:				
Belgium	103	541	570	525
Channel Islands	177	153	154	268
Netherlands	—	479	683	660
Portugal	476	342	412	383
Spain	5,434	5,962	5,905	4,116
South Africa	44	436	489	483
Argentina	—	198	182	172
Australia	—	24	67	40
Total in 100 cwts.	6,336	8,392	8,638	6,953

As the following table shows, the English markets supply Ireland, the Scandinavian countries, Finland and Canada, with grapes mainly Spanish.

The proportion of Spanish grapes imported directly into these countries is only small.

Re-export of Table Grapes from Great Britain.

	Average 1911-13	1927	1929	1930
Value in £100	1,374	972	1,110	823
Re-exports in 100 cwts. to:				
Denmark	—	2	5	4
Germany	58	4	1	1
Finland	—	47	38	17
Irish Free State	—	127	150	117
Netherlands	—	4	5	4
Norway	75	6	15	15
Sweden	—	16	24	20
Union of South Africa	17	—	—	—
British India	27	23	28	15
Ceylon	—	19	28	18
Straits Settlements	—	9	17	13
Brazil	186	—	—	—
Canada	251	36	27	10
Newfoundland	22	20	16	9
United States	306	11	15	5
Total in 100 cwts.	1,079	355	402	287

IRISH FREE STATE.

The Irish Free State imports grapes through the English ports.

Import of Table Grapes into the Irish Free State.

Year	In 1000 cwt.	In 100 cwt.		
		Total	Including imports from	
			Great Britain	Northern Ireland
1928	121	161	130	9
1929	412	182	142	9
1930	—	—	—	—

THE THREE SCANDINAVIAN COUNTRIES AND FINLAND.

In 1929-30 the Northern lands took almost three per cent. of the whole of the table grapes as internationally handled, and in comparison with the pre-war time had nearly trebled their imports. Per head of the population there were imported by Norway 0.65 kg., by Denmark 0.31 kg. by Sweden 0.30 kg., and by Finland 0.25 kg.

Import of Table Grapes to Denmark.

Year	In 1000 crowns	In 100 quintals					
		* Total	Including imports from				
			Belgium	Germany	Great Britain	Netherlands	Spain
Average 1911-13	79	36	—	15	4	—	14
1928	1,090	115	3	13	—	11	81
1929	1,156	132	3	14	1	17	91
1930	—	97	—	—	—	—	—

Re-export of Table Grapes from Denmark.

Year	In 1000 crowns	In 100 quintals	
		Total	Including re-export to Sweden
Average 1911-13	2	1	1
1928	182	20	9
1929	86	13	5
1930	—	—	—

The higher import into Norway is to be attributed to the fact that the duty on table grapes is lower than it is in the other Scandinavian countries. The greater proportion of the grape exports into these countries is from Spain. In the cases in which Germany is shown as the supplying country, the grapes are partly Spanish and partly Italian, while the English supplies to these countries are almost wholly drawn from the Iberian peninsula.

Import of Table Grapes into Finland.

Year	In 1000 Finnish marks	In 100 quintals			
		Total	Including imports from:—		
			Germany	Great Britain	Spain
1928	8,873	90	30	20	40
1929	7,788	87	30	10	40
1930	6,819	78	—	—	—

Import of Table Grapes into Norway.

Year	In 1000 crowns	In 100 quintals		
		Total	Including imports from:—	
			Germany	Spain
Average 1911-13	507	80	—	—
1928	1,328	142	8	122
1929	1,687*	168	11	134
1930	—	170	—	—

Import of Table Grapes into Sweden

Year	In 1000 crowns	In 100 quintals						
		Total	Including imports from:—					
			Belgium	Denmark	Germany	Great Britain	Netherlands	Spain
Average 1911-13	338	36	—	3	12	9	—	10
1928	1,797	142	5	11	20	6	19	72
1929	1,995	173	5	14	27	10	21	82
1930	—	185	—	—	—	—	—	—

GERMANY.

Vine-growing in Germany was until a few years ago solely directed towards production of wine grapes. The fresh fruit of German production was consumed locally only. Under the influence of the crisis in regard to marketing of wine,

an adoption of table grape production has lately been strongly advocated, and on the one hand the introduction of hothouse cultivation, and on the other the adaptation of the existing cultivation, have been urged but so far with no great result. The establishment of a hothouse cultivation of any importance is unlikely, since the very considerable possibilities in Germany were not recognised sufficiently early and it now seems impossible to overtake the long start which the Belgian and Dutch growers have in respect of production and marketing technique. Any extensive transformation of the open air cultivation of wine grapes into that of table grapes is made difficult from the fact that the German grapes with the exception of a few varieties are not well suited for sale as fresh fruit. The fruit as a whole is extraordinarily thin-skinned, the berries are small, dark green and sourish, and cannot compete as a rule with the imported table grapes, although by connoisseurs they are prized for their flavour which is often highly aromatic. The " Riesling " in particular cannot be sold as a table grape.

The grapes placed on the market in the two last years were exclusively wine grapes and consisted in the first place of the " Gutedel " variety which is prevalent in the region where the Markgräfer wine is produced. " Gutedel " is a very fine grape, relatively large and of a golden yellow colour. The " Portugieser, " a blue variety, was also sold as a table grape, and also in smaller quantities the " Silvaner. " The most important region of production is the Palatinate, but table grapes are also sent to the market from the vine-growing area of Hesse. The Middle Rhine vine growing areas, where the neighbouring wholesale fruit markets of Coblenz, Neuwied and Cologne provide excellent marketing facilities, were not in a position to supply table grapes in large quantities. For the same reasons the deliveries from the Baden and Württemberg areas have been insignificant. The best sale for table grapes has been mainly in the large towns which lie near the respective vine-growing areas. Comparatively small deliveries only were made to Berlin, Leipzig and other principal markets. Up to the present there are no official statistics of the trade in table grapes. According to the returns of the German State Railway Company somewhat more than 20,000 quintals of wine grapes of German origin were sent by rail during 1930. In consequence however of the short distances to be covered, transport by lorry or camion bulks larger than forwarding by rail. From information supplied by the German Vine-growing Federation (*Deutscher Weinbau-Verband*), in 1930 wine grapes forwarded by camion might be estimated at about 50,000 quintals, so that altogether something over 70,000 quintals of grapes of German production came on the market. In 1931 in spite of the extensive propaganda carried on by the vine growers' associations fewer grapes were marketed than in 1930. This may have been due to the wet season which affected the quality of the fruit, while at the same time it resulted in prices being lower than for imported grapes, the retail prices being from 20 to 30 pfenning per kg., barely covering the costs of gathering.

The German table grape production in 1930 amounted in volume to scarcely one tenth of the import. The imports into Germany showed a rapid increase over the last thirty years, apart from the interruption of trade caused by the world war and the inflation.

An increase from 181,000 quintals for 1901-03 to 701,000 quintals for 1923-1930 is to be noted. The consumption per head at present of imported grapes is 1.1 kg. The grapes primarily coming on the German markets are the cheap kinds from Italy, France and Hungary, but nearly all the European exporting countries are represented. Of recent years a small import from Argentina has come into existence.

Import of Table Grapes into Germany.

	Average 1911-13	1929	1929	1930
Value in 1000 RM.	13,673	33,650	38,631	31,499
Quantities in 100 qts. imported from:				
Belgium	35	17	26	14
Bulgaria	—	—	374	159
France	907	3,191	3,791	1,183
Greece	—	—	—	12
Italy	1,675	1,752	2,112	3,355
Yugoslavia	—	5	—	62
Netherlands	17	209	214	249
Portugal	152	51	71	67
Rumania	8	32	27	33
Spain	693	1,041	1,215	879
U. S. S. R.	—	22	24	24
Hungary (1)	39	22	51	643
Algeria	81	—	21	18
Turkey	34	—	—	—
Argentina	—	14	27	21
Total	3,644	6,373	7,629	7,026

(1) Including Austria.

THE REMAINING COUNTRIES OF CENTRAL EUROPE.

In addition to Germany, the countries of Central Europe which are to be regarded as importing table grapes are Switzerland, Austria and Czechoslovakia. Although in each of these countries home grown table grapes also appear on the markets, in Austria and in Switzerland the quantities are inconsiderable as compared with the imported grapes. In Czechoslovakia the production of table grapes is relatively large; and in fact there is a small export. Before the war the area of Austria as now existing, and that of Czechoslovakia, obtained table grapes, in so far as the home production was insufficient, mainly from regions then lying within the Austrian-Hungarian monarchy, in particular from Southern Tyrol and Dalmatia. Taken together the imports into Austria-Hungary for example in the years 1911-13 were less than one fifth of the quantities imported into Switzerland over the same period. On the contrary the Austrian Republic imported in the years 1929-30 on an average more than ten times as many table grapes as did Austria-Hungary taking the average of 1911-13. The imports into Switzerland bear about the same proportion to the prewar imports as do those of Germany and the Scandinavian countries, *viz.* they have risen by about 250 per cent. The per capita consumption of imported table grapes in Switzerland is 2.9 kg. and in Austria 1.8 kg. The relatively very high per capita con-

consumption in Switzerland is connected, *inter alia*, with the more developed tourist traffic. The corresponding Czechoslovakian figure is 0.24 kg although the imports have nearly doubled in the last few years.

These three Central European states import grapes mainly from France, Italy and South East Europe. Spanish grapes are imported only in small quantities

Export of Table Grapes from Austria-Hungary.

Year	In 100 Kt	In 100 quintals	
		Total	Including exports to Germany
Average 1911-13	115	33	30

Import of Table Grapes into Austria-Hungary.

Year	In 100 tr	In 100 quintals		
		Total	Including imports from: -	
			Germany	Spain
Average 1911-13	813	101	62	36

Import of Table Grapes into Austria.

Year	In 100 Sch.	In 100 quintals						
		Total	Including imports from: -					
			Bulgaria	France	Italy	Yugo-slavia	Spain	Hungary
1928	3825	686	80	7	328	73	54	120
1929	5874	1165	114	7	399	80	79	449
1930	4935	1255	93	1	312	188	37	604

Import of Table Grapes into Czechoslovakia.

Year	In 100 Kc.	In 100 quintals						
		Total	Including imports from: -					
			Germany	Italy	Yugo-slavia	Austria	Spain	Hungary
1928	8079	163	5	24	43	4	40	27
1929	15457	368	12	61	43	10	62	156
1930	1338	335	—	38	69	—	47	153

Export of Table Grapes from Czechoslovakia quintals

Year	In 1000 Kc	In 100 quintals	
		Total	Including export to Poland
1928	835	17	17
1929	760	23	22
1930	592	24	23

Import of Table Grapes into Switzerland (in 100 quintals).

Year	In 1000 fr.	In 100 quintals				
		Total	Including import from —			
			France	Italy	Spain	Algeria and Tunisia
Average 1911-13	1,832	456	179	224	25	15
1928	6,738	962	724	155	61	14
1929	6,444	986	724	171	68	18
1930	7,621	1,287	501	676	82	10

POLAND AND THE BALTIC STATES.

Imports of table grapes into the Baltic States are very small or non-existent the tariff rates on table grapes being practically prohibitive for these countries in Estonia for instance the duty is 335 RM. per quintal. Latvia where the duty is somewhat lower, imports annually some hundred quintals. The Polish imports are larger, as although there is a high duty Poland has agreed to some preferential tariffs with certain important grape exporting countries. Polish imports of grapes have increased in the last few years only in connection with the trade treaties and in 1930 rose by leaps and bounds. The table grape import per head of population for the average of the two years 1929 and 1930 was 0.17 kg. Rumania is the chief country of supply, followed by Hungary, while in 1930 a considerable quantity of Spanish grapes came on the market.

Import of Table Grapes into Poland.

Year	In 1000 zlotys	In 100 quintals					
		Total	Including imports from:—				
			Italy	Rumania	Spain	Czechoslovakia	Hungary
1928	1,238	115	8	35	2	15	51
1929	2,213	295	11	—	1	32	132
1930	3,629	704	19	294	99	26	221

Import of Table Grapes into L.O.V.C.

Year	In 1000 lbs	In 100 quintals		
		Total	Including imports from —	
			Germany	U S S. S.
1828	70	6	1	4
1929	78	6	2	3
1930	99	6	3	3

II. — Overseas Countries.

EGYPT.

Egypt is the natural market for the table grapes of the numerous producing regions lying within easy reach and possessing good transport facilities : Cyprus, Greece, Rhodes and Palestine. The larger towns, in particular Cairo, Alexandria and Port-Said, experience a glut of table grapes from these regions in the season. Although in Egypt as a whole there is only a limited consumption of grapes, the consumption of imported grapes per head of the Egyptian population is 0.79 kg. The earliest to arrive on the market are those from Palestine, while grapes from Cyprus, Rhodes and Greece make their appearance almost simultaneously. There is a great preponderance of grapes from Greece in the import taken as a whole.

Import of Table Grapes into Egypt.

Year	In 1000 Egyptian pounds	In 100 quintals					
		Total	Including import from —				
			Greece	Rhodes	Cyprus	Palestine	Syria
1913	415	690	—	—	—	—	—
1928	956	1,196	799	95	210	51	40
1929	883	1,284	853	109	165	89	—
1930	1,168	1,027	656	86	151	97	—

THE ASIATIC IMPORTING COUNTRIES.

There is in some parts of the Far East and of British India a production of table grapes in some quantity, but grapes are also imported for the benefit of the large towns which are remote from the centres of indigenous production. In China the most important wine growing districts are Southern Manchuria and the peninsula of Shantung where the cultivation is carried on in the neighbourhood of the port of Che-foo. The Shantung grapes come on the market during

the whole year and are in special demand during the festivals in the winter. In Southern Manchuria some excellent varieties of table grapes are grown, which were introduced by the French missionaries and recall the Tokay grapes and the Emperor grapes of California. There was a special development of the production after the planting of vineyards by Japanese in the adjacent areas of Shantung. The grapes for the most part reach the markets of Harbin, Mukden and Peiping. In Japan the table grape production has been greatly extended during the last 25 years, and in this period the quantities gathered have increased from about 65,000 quintals to approximately 500,000 quintals. There are however so far no statistics establishing the respective proportions of wine grapes and table grapes. The introduction of glasshouse cultivation led to a further increase in the production. In Northern India at the foot of the Himalayas and in the Vale of Cashmir there are vineyards, and modern planting has been carried out by the English.

Table grapes are not shown separately in the import statistics of the countries of the Far East or of India, since the quantities imported are not very considerable. The imported grapes come mainly from California and during the period 1924-28 the total was about 7,500 quintals. Out of this about 275 quintals went to Japan, and rather more than 1000 quintals to China. In Japan a hundred per cent. duty acts as a check on the importation of grapes. Separate figures are available for the import into the Philippines which meets the requirements of the Americans resident there and the well-to-do Chinese.

Import of Table Grapes into the Philippine Islands).

Year	Total value in 1000 pesos	Total in 1,000 quintals	Including import from United States
1927	169	5	5
1928	381	11	11
1929	421	10	10

THE AMERICAN IMPORTING COUNTRIES.

In America large quantities of table grapes are regularly imported only by Canada, Brazil and Cuba. Canada leads in this respect, and its market is of great importance for the table grape cultivation of the United States, since the production of the States has exceeded internal requirements. The increase in the production in the States was paralleled by a steady increase in the export into Canada. The relative increase of the Canadian import in the period between 1911-13 and 1928-30 is larger than in any one of the more important European importing countries. During the years 1929-30 the import of table grapes was at the rate of 1.4 kg. per head of the population. The imports came almost entirely from the United States. The same holds good of the Cuban import,

where the per capita consumption is also relatively high a fact explicable from the large proportion of North Americans in the population. Brazil imports nearly as large quantities as Cuba, but the Brazilian foreign trade statistics do not indicate the countries of origin. The corresponding export statistics show that Spain, Portugal, Argentina and the United States are almost equally concerned in the supply of grapes to Brazil. Of the other South American States Uruguay and Panama only have a small import of grapes.

Import of Table Grapes into Canada

Year	In 1,000	In 100,000 lbs.		
		Total	Including import from Great Britain	United States
Average 1911-13	323	55	—	—
1928	1,189	231	4	224
1929	1,021	344	3	340
1930	1,391	266	2	265

Import of Table Grapes into Cuba.

Year	In 1,000	In 100,000 libras (1927 and in 1,000 quintals)	
		Total	Including import from United States
Average 1911-13	38	9	—
1927	212	26	26
1928	310	27	27
1929	—	18	—

Import of Table Grapes into Brazil.

Year	In 1000 milreis	In 100 quintals
Average 1911-13	1477	198
1928	8197	311
1929	6257	285
1930	5678	225

Import of Table Grapes into Uruguay.

Year	In 1000 pesos	In 100 quintals	
		Total	Including import from Argentina
1927	10	5	—
1928	27	11	13

Import of Table Grapes into Panama.

Year	In 1000 Balboas	In 100 quintals	
		Total	Including import from United States
1927	12	6	6
1928	16	7	7
1929	21	8	8

NEW ZEALAND.

The imports in the post war period show a rising tendency, and in 1930 there were ten times the quantity of grapes imported as in 1912. The per capita consumption in 1929-30 was 0.25 kg. The increasing importance of the Australian supplies is to be noted.

Import of Table Grapes into New Zealand.

Year	In 1000	In 100 cwt.		
		Total	Including import from	
			United States	Australia
Average 1911-13	23	10	0	10
1928	141	59	41	18
1929	152	65	52	12
1930	180	90	53	36

Prof. Dr. K. RITTER and Dr. M. GUTTFELD.

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eration of Credit and Insurance. Then follows a list of the committees and committees formed among the insurance companies, a list of local insurance societies, of liquidating and bankrupt companies and concerns to which insurance operations have been forbidden, a list of appraisers of damages and lastly an index of persons and concerns mentioned in the yearbook.

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F. A.

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[This study contains some interesting information on the origin, development and present conditions of the co-operative agricultural movement in Czechoslovakia. It has been written by Dr. Dvořák, Director General of the Union of Agricultural Co-operatives of Bohemia, and a well known figure in international co-operative circles.

A rich statistical and general documentation renders this work highly valuable for its readers, who can get, in a condensed form, a clear and complete idea of agricultural co-operation in Czechoslovakia].

G. P.

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[The 5th edition of this imposing encyclopedia in five large and well printed volumes was published after a complete revision and remodelling of former editions. It forms now a modern reference book of very wide scope. It is by no means restricted — as one might suppose from the title — to the field of politics, but treats social, economic, juridical and cultural questions as well, approaching them mostly from the Catholic viewpoint, which does not in any way prejudice the treatment of the various subjects in these volumes, which are extremely rich in interesting and up to date material. The five volumes contain more than 2,000 articles in alphabetical arrangement. A supplementary volume is in course of preparation. It will include, among other things, a detailed subject index to the whole work. A feature of general interest are the monographs on specific countries, which give in a short and concise way a picture of the whole political, economic and cultural atmosphere of the geographical area treated. The encyclopedia is also rich in biographies of important politicians, philosophers, and theologians, which are often accompanied by full page portraits.

The agriculturist, and more specially the agricultural economist, will be interested in a large number of articles, such as those on agrarian policy, agrarian socialism, agricultural co-operation, organization, settlement and similar questions. Also the staple commodities such as cereals, cocoa, tobacco, wine are treated in separate articles].

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CO-OPERATION

Agricultural Co-operation in Poland (*concluded*).

V. — CO-OPERATIVE CREDIT SOCIETIES.

(a) *General Remarks.* — Co-operative Credit Societies represent the most common type of co-operative society in Poland. The number of these banks, in which the majority of the members are agriculturists, was 4,429 on 31 December 1930, according to the figures supplied by the State Council of Co-operative Societies, while there were 2,770 institutions of this class in which the majority of members belong to other callings. The following data give some further particulars with regard to the societies which belong to the Audit Unions:—

On 31 December 1930 the Confederation of the Unions of Agricultural Co-operative Societies in the Polish Republic included in its membership 2,854 societies of a purely agricultural character and 31 societies of other types ;

The Federation of the Unions of Polish Co-operative Societies included 752 credit societies and all its other constituent societies may be considered as being of a mixed character ;

The other associations have a much smaller number of members.

Table IV shows how the societies are distributed among the various unions.

The credit banks are of two kinds, one, the small Raiffeisen banks known in Poland as *Stefczyk* banks and the other, the larger banks of the *Schultze-Delitzsch* type, usually called "popular banks". The two types of bank are distinctly Polish in character and differ one from the other to a less degree than, for example, the German Raiffeisen banks from the *Schulze-Delitzsch* banks.

A distinctive feature of the Polish popular banks is that they endeavour to have a majority of agriculturist members to whom they grant loans for comparatively long periods, namely, up to three years by the extension of the bills of exchange. The *Stefczyk* banks also make loans for periods up to four years. Both types of bank, moreover, tend to become institutions with unlimited liability. The *Stefczyk* banks are supported by the Confederation of the Unions of Agricultural Societies and are described under (b) of the present chapter, while under (c) will be found an account of the popular banks.

The co-operative credit societies in Poland are looked upon as pioneers in the co-operative movement, particularly as regards the agricultural societies.

As was already stated in Chapter III when discussing the principles underlying the various Polish co-operative movements, the leaders have always laid particular stress on the development of the credit societies.

(b) *Co-operative Agricultural Savings and Loan Banks of the Raiffeisen Type.*

— Table IV shows that the majority of the co-operative credit societies are members of the Confederation of the Unions of the Agricultural Societies of the Polish Republic, and at the end of 1930 the number of purely agricultural member societies was 2,854 out of a total of 3,512.

The distribution of the members of these societies is shown in Table V, from which it appears that in certain provinces the number of members of co-operative societies for every 1,000 farms is over 300. This figure is highest in Silesia of Cieszyn, where 50 % of the farms belong to a society. On the average there are stated to be 189 members of co-operative societies per 1,000 farms, though probably this figure is not absolutely correct.

TABLE V. — *The Distribution of the Members of the Stefczyk Banks belonging to the Confederation of the Unions of Agricultural Co-operative Societies (Zjednoczenie Związków Spółdzielni Rolniczych) throughout Poland.*

Province	Number of members of co-operative societies	Number of members per 1000 farms
Warsaw	35,329	154
Lodz	18,645	92
Kielce	44,526	144
Lublin	41,151	140
Bialistok	34,400	188
Wilno (a part)	27,907	345
Nowogrodek	40,746	305
Polesia	35,742	198
Volhynia	52,107	208
Pomerania	5,535	62
Silesia of Cieszyn	7,359	496
Kracow	95,919	330
Lwów	91,907	234
Stanislawow	35,911	152
Tarnopol	30,721	123
Total	585,905 (1)	189

There was a considerable development in banks of the Raiffeisen type during the period before the war, which however brought about the downfall of the majority. Matters were made still worse by the fall in the value of the Polish

(1) Not including Upper Silesia, the Province of Poznan and part of the Province of Wilno.

currency and it became necessary to take steps to reconstitute the banks. However, by 1924, the number of banks belonging to the Confederation had already reached a total of 1,843, which rose to 2,709 and 2,843 in 1929 and 1930 respectively. The total volume of business transacted was 3,930,000 zlotys in 1924 but increased in 1929 to 92,885,000 zlotys and to 124,557,000 zlotys in 1930.

In 1924 the number of members was 227,030 and this figure rose to 591,263 in 1929 and to 689,418 in 1930. These figures show that the Stefczyk banks, which were members of the Confederation, showed the more rapid development.

Their characteristic feature lies in the fact that they are institutions with unlimited liability and that the value of each share is very low. They are in fact quite small institutions although their membership figures are higher than those of the Raiffeisen banks in many European countries. The members of the executive committee and of the council of supervision as a rule receive no payment for their services and only the cashier has the right to a modest salary.

The majority of the members belong to the small agriculturist class and, in most of the societies belonging to the Warsaw Audit Union, the membership was made up of farmers owning 5 to 20 hectares, followed by those whose holdings were from 2 to 5 hectares in extent. These two groups made up 78.1 per cent. of the total membership while 15.1 per cent. owned less than 2 hectares and 6.8 per cent. upwards of 20 hectares.

These figures differ slightly from those for other Unions but in any case the number of members farming more than 50 hectares is always very small, usually less than 1 per cent.

The statistics for the occupational distribution of the office bearers in the Stefczyk banks belonging to the Confederation are very characteristic: they also are mainly provided by the small farming class. Thus out of 7,690 members of the councils of supervision of the Warsaw Credit Union, 6,194 were small farmers and 788 only were school teachers, other callings being still more sparsely represented. Out of 3,482 members of the executive committees and 1,168 cashiers the numbers of small farmers were 2,489 and 497 respectively. These figures shew clearly that these societies work in close contact with the great mass of the rural population and that they therefore exercise a highly important educational influence on the peasant and peasant farmer class.

The work of the Stefczyk banks, members and non-members of the Confederation alike, in the field of credit has not as yet been adequately developed. Up to the present it has not been found possible to replace the funds they possessed before the depreciation of the currency by which they were wrecked. The banks belonging to the Confederation had arranged 428,000 loans for a total value of 113 millions zlotys in 1930, the average amount of each loan being 265 zlotys, though the average is only 166 zlotys in the Province of Wilno, the lowest figure recorded for Poland, while in Silesia, which gives the highest figure, the average is 831 zlotys. One society on the average grants loans during the course of the year to 156 members for an average total sum of 41,000 zlotys, the amount of any individual loan rarely exceeding 1,200 zlotys. In 1930 only 12.8 per cent. of the Stefczyk banks belonging to the Confederation made loans to members for sums exceeding this amount.

The period for the repayment of the loans is as a rule more than one year and in 1930 the average was 19.5 months.

The following table gives figures showing the purposes for which the loans were granted; they relate to the Warsaw Union and the Lwów Union or "Patronat".

Warsaw Union :		Lwów Union :	
Live stock	22.8 %	Repayment of debts	29.7 %
Repayment of debts	21.5 %	Buildings	15.9 %
Buildings	17.1 %	Live stock	14.9 %
Purchase of land	7.4 %	Purchase of land	14.9 %
Payments to members of the family	6.0 %	Payments to members of the family	5.2 %

The deposits, made up of members' savings, are quite inconsiderable in amount in consequence of the agricultural crisis and the resultant impoverishment of the country side. At the end of 1930 the total was 35,560,000 zlotys for the 2,739 banks to which the statistics refer and the number of deposits was 225,000. The average deposit was 158 zlotys and for every 1,000 zlotys lent there were deposits amounting to 286 zlotys. Hence the Stefczyk banks were dependent for the most part on capital provided by other institutions, of which the chief creditors were the State Agricultural Bank and the Central Bank of the Agricultural Co-operative Societies (*Centralna Kasa Spółek Rolniczych*). The number of banks holding deposits in excess of 50,000 zlotys represented 5.6 per cent. of the total, while in 22 per cent. of the banks the number of deposits was not above 1,000.

At the present time Poland ranks among the countries in which credit is excessively costly and this state of affairs reacts very unfavourably on the Stefczyk banks, obliging them to charge an interest of 8 to 11 per cent. on the loans granted, while on the other hand they pay a very high rate of interest (4 to 11 per cent.) on savings deposits.

The difference between the rate of interest paid for deposits and that received for loans is very marked and is due to the small size of the co-operative societies and to the small amount of the individual loans granted, administration expenses being thus rendered unduly high. In 1932 the cost of administration was on the average equivalent to 3.91 per cent. of the sums lent, a figure which rose in the Warsaw Union to 4.69 per cent. while in the Cieszyn Union alone was it less than 2 per cent. the precise figure being 1.97 per cent. As the banks increase in importance there is a tendency for the administrative expenses to diminish in proportion to the amounts of the loans.

(c) *Co-operative Loan and Savings Societies of the Popular Bank Type.* — Before the reconstitution of Poland important credit institutions, organized to some extent on the lines of the Schulze-Delitzsch banks, had been working more or less successfully throughout the country. In the territory formerly under Prussian rule they were known as popular banks and their beginnings date back some 70 years.

Almost all these societies belong to the Credit Unions which are members of the Union of Polish Co-operative Societies and, as will be seen from Table 18, at the end of 1930 their total number was 752 and of these 249 belonged to the Poznan Union, 324 to the Warsaw Union and 179 to the Union of Lwów. A large proportion of the co-operative societies attached to the Warsaw and Lwów Unions very closely resembled the Stępczyk banks described above. They are however for the most part large scale institutions employing as a rule their own capital only and the members' shares and reserve funds are of considerable importance. A distinguishing feature is their tendency to become institutions with unlimited liability and thus, as already stated, they differ from the typical Schulze-Delitzsch Banks. In 1929, out of 727 Banks, 342 had unlimited liability, proving that the members repose great confidence in their stability. The societies are under expert management and hence their staff is in receipt of salaries as in ordinary banks.

In 1929 the total of the capital of 727 of these institutions amounted to 39,265,000 zlotys and the reserve and other owned funds to 17,907,000 zlotys. The total of the deposits during the year was 135,916,000 zlotys and of the sums placed to current account 11,265,000 zlotys.

The loans guaranteed by bills of exchange were for a total of 203,612,000 zlotys and of all other loans 53,938,000 zlotys while the volume of business transacted amounted to 307,047,000 zlotys. The average financial position of the banks is shown by the following table :

Owned capital	84,266 zlotys
Deposits	202,450 »
Sums due	122,907 »
Other liabilities	12,723 »
Total liabilities	422,348 »
Cash in hand	10,572 »
Bank buildings and rent	16,447 »
Loans	354,264 »
Real and other property	23,129 »
Other assets	17,447 »
Balance loss	488 »

At the end of 1929 the total number of members was 531,986, distributed over 727 societies, of whom 58 per cent. were agriculturists. Of the latter 269,510 owned farms with an area of less than 20 hectares and 37,650 owned larger farms. It will be seen that a clear majority of the members are agriculturists and hence the societies are here called agricultural banks and treated as institutions properly coming within the scope of a report on agricultural co-operation. It is at the same time quite true that they provide for the requirements of all classes, especially of the lower middle class, but their activities are closely connected with the country side and the farms.

The work of these societies in the field of credit mainly consists in the grant of short term loans on bills of exchange, partly guaranteed by securities, and in

the opening of members' current accounts ; 83.0 per cent. of the balance sheet total in 1929 represented outstanding loans of these types. The credit banks might properly use part of their capital for long term credit, as on this date their deposits represented 47.9 per cent. of the available capital, but this course was not followed as it was desired to maintain their normal policy of granting short term credit only and thus to ensure the constant fluidity of their assets. A considerable sum in ready money is always retained and their bills of exchange make it easy to have capital sums available at short notice by rediscounting. In 1929 bills not rediscounted and cash in hand were equal to 92.2 per cent. of their liabilities including deposits, current accounts and sums due to other banks.

(d) *The Central Banks of the Co-operative Societies.* — The requirements of the agricultural co-operative societies are fulfilled by a number of central banks of which the most important are the Central Bank of Agricultural Co-operative Societies (*Centralna Kasa Spolek Rolniczych*) at Warsaw and the Bank of the Union of Co-operative Societies at Poznan.

The Central Bank was founded at Lwów in 1907. In 1917 it was reorganised and transferred to Warsaw. It may be described partly as a co-operative and partly as a governmental institution and its membership is made up of the various co-operative societies which are shareholders. The number of such societies at the end of 1930 was 3,716 and of these 3,083 were distributed among the following groups :—

Credit banks	2,611
Agricultural and trading societies	153
Co-operative dairies	285
Other societies	34

During the same period the paid-up share capital amounted to 4,664,000 zlotys, of which 363,000 zlotys were paid by the State and the remainder by the various co-operative societies. Other funds totalled 71,285,000 zlotys and the value of the deposits of the various co-operative societies was barely 4,379,000 zlotys. The Central Bank has been unable as a result of the crisis directly to assist the societies and it has been mainly engaged in trying to obtain State loans and to distribute them among the member societies.

This Bank carries out its operations throughout the Polish Republic and its members for the most part belong to the Confederation of the Unions of Agricultural Co-operative Societies. The headquarters of the Bank are at Warsaw and it has 6 branches.

The Bank of the Union of Polish Cooperative Societies is organized as a joint-stock company. It was founded at Poznan in 1886 and its capital, which was quite small at the outset, has increased rapidly. The majority of the shares were then held by the popular banks. After the war the situation was somewhat changed as a great many of the shares had passed into the hands of private persons; the preference shares, however, are still held to-day by the popular banks and the

Bank itself has retained its character as a central body for financing the co-operative movement.

In 1929 the balance sheet showed a total of 281,000,000 zlotys. Owned capital amounted to about 23,000,000 zlotys and deposits to 140,000,000 zlotys. The Bank assists the various co-operative credit banks within the limits of its powers by discounting their bills and by providing in certain cases different kinds of loans. Its sphere of operations lies almost entirely among the co-operative societies belonging to the Union of Polish Co-operative Societies.

VI. — CO-OPERATIVE ORGANISATION OF CONSUMERS' SOCIETIES.

(a) *The Beginning of the Movement.* — As in a large number of cases in other countries the beginning of the movement for organising consumers' societies took the form of the group purchase of requisites. The element characteristic of Polish efforts in this field in the territory that formerly, belonged to Austria, and to some degree also in the former Russian territory, is to be found in the tendency of the local agricultural societies known locally as Agricultural Clubs (*Kolka rolnicze*) to open small shops of their own in addition to arranging joint purchases. These were not as yet developed as agricultural trading societies or organisations and were chiefly concerned with the provision of various requisites for farm households and in part for the farms themselves. Thus the shops in question closely resembled small co-operative stores, stocking provisions, etc. The movement may be said to have had its beginnings in Galicia in 1882.

In 1891 the Union of Agricultural Trading Associations of Kracow (*Związek Handlowych Kolek Rolniczych*) was instituted. This was a co-operative organisation, serving as a wholesale supply store for the local societies. District stores were established twenty years later which acted as wholesale supply stores for the various trading associations.

A sound system of trading associations requires organisation on a much larger scale than that of the societies in the former Galician territory. Thus it was impossible to develop the stores of the farmers' clubs into genuine co-operative agricultural trading societies. Only the Ukrainians in Eastern Galicia made any serious efforts in this direction and, as shown by Table IV, they possessed, at the date to which the figures refer, 2,547 trading societies. These however are in reality nothing more than small consumers' co-operatives solely for the supply of a limited range of products required by agriculturists for purposes of the household or of the farm.

The Polish element in the population of the former Galicia organised its selling associations on a large scale and of these a description will be given later.

In other parts of Poland members of the associations carried out joint purchases, and in the former Prussian area the German Raiffeisen credit banks frequently combined their normal activities with trading, which in some instances was more highly developed than their credit operations.

(b) *The Agricultural Syndicates and the "Rolniki".* — In the former Russian territory, as early as the end of the XIXth Century, large co-operative organ-

isations were established for the supply of the requisites of farms and farmers. The members of these bodies were for the most part recruited among the owners of the larger farms in which they had invested considerable capital sums. The area covered by the operations of the various syndicates was generally quite large and usually about 12,000 sq. km. The establishments themselves took the form of large commercial undertakings, under experienced management, for the supply of agricultural machines and equipment, seeds, cake, artificial manures, etc. On occasions the syndicates bought from their members a certain amount of cereal and other seeds of their own production.

Two syndicates of this type were also formed in the former Austrian area.

Since 1900 the Polish inhabitants of the former Prussian territory also took steps to form agricultural trading associations to which the name of "*Rolniki*," was given. The first of these was founded in 1900 and ten years later there were already 61 such bodies at work. They are smaller than the agricultural syndicates in the former Russian territory but they are organised on a basis of a substantial share capital contribution by members and of management by salaried experts. A characteristic feature is the high importance attributed to the purchase of farm products, including cereal and other seeds and a certain quantity of potatoes, partly from their members and partly from other farmers not belonging to the society. In addition the *Rolniki* provide both members and non-members with other farm requisites such as artificial manures, cake, seeds, coal, etc., but they do not undertake the sale of agricultural equipment and machinery.

(c) *Co-operative Societies founded during the War Period.* — The war largely disorganised the co-operative movement on its agricultural and commercial side.

The establishment of small agricultural trading co-operative societies was greatly stimulated at the end of the war (1918-21). Poland had at that time introduced a system of rationing for a large number of essential products such as flour, sugar, coal, etc., and it was easier for the co-operative societies than for the ordinary commercial establishments to obtain supplies. At the same time consumers who were members of the co-operative societies could be sure of obtaining without difficulty any particular product they required. Thus a number of small societies were instituted which in normal times would have had no chance of successful development and those in the country were classed as agricultural trading associations.

Changed conditions caused certain of these associations to combine and to form themselves into important organisations; others were wound up, while others again carried on a precarious existence. Before the war the agricultural syndicates and the *Rolniki* were but little interested in the provision of household necessities, whereas the agricultural trading associations founded after the war pay special attention to this line of business, becoming rather co-operative consumers' societies than agricultural trading associations.

The application of the law on co-operative societies also had its effect in transforming to some extent the co-operative movement. Thus the agricultural syn-

dicates in the former Russian territory gave up their co-operative character and converted themselves into joint stock companies. Experience however showed that this new form of organisation was unsuitable and they returned once more to the co-operative form of organisation.

The severe crisis from which Polish agriculture has now been suffering for over two years, has seriously affected all institutions which work in close connection with the agricultural classes with the idea of supplying the requirements of their farms. The turnover of the agricultural societies has been greatly reduced and most of them are in serious difficulties owing to the inability of their clients to meet their bills.

(d) *The General Agricultural Trading Associations of to-day.* — Reference has been made above to the Agricultural Associations and to the *Rolniki* which have been considered as types of regular co-operative trading associations of the prewar period. Most of these institutions are still in being and in addition many new societies have been founded, but a considerable number have been severely affected by the financial crisis which has lasted for upwards of two years, and are now in process of liquidation.

At the end of 1929 the number of *Rolniki* was 89 with a membership of 15,275 persons holding shares amounting in each case to sums varying from 100 to 600 zlotys. These are societies with limited liability, each member being liable for a sum equivalent to five times his actual share holding. The aggregate turnover of the *Rolniki* amounted to 13.2 million zlotys in 1924 and the aggregate balance sheet total was 10.8 million zlotys. In 1929 the turnover was 169.3 million zlotys and the balance sheet total 58.8 million zlotys. In the same year 753,000 tons of goods were sold.

The central trading body of the *Rolniki* is the Central Establishment at Poznan, which was actually founded in 1906 but only received its title in 1918. This is a joint stock company with a large owned capital and a turnover which in 1929 amounted to 87 million zlotys. There is also at Poznan a Central Machine Depot (*Zwiazkowa Centrala Maszyn*) which is also a joint stock company but is conducted on the lines of a co-operative society working for the benefit of the farming class.

The *Rolniki* and their Central Establishment are holding their own fairly successfully against the prevailing financial crisis.

The agricultural syndicates are affiliated to a central body known as the "*Kooperolna*" (Agricultural Co-operation). They are at the present time in serious difficulties and it would not be easy at this juncture to give any detailed account of their work.

The agricultural trading associations, now for a long period under the management of the audit unions, form a group apart, belonging to the Confederation of the Agricultural Co-operative Societies of the Polish Republic.

At the end of 1930 these associations numbered 157 and are most numerous in the provinces of Kracow (23), Lwów (20), Lublin (19), Bialystock (14) Kielce, etc. The total number of members is 53,213, and they are organised on lines similar to those of the *Rolniki*, save that, in addition to supplying

farm requisites, they are also purveyors of commodities essential for farm households.

The number of members, as in the case of the *Rolniki*, is not high and, as a result, owing to the relative smallness of the owned capital, these institutions are often converted into organisations more closely resembling private business undertakings than co-operative societies.

These associations possess a number of central trading organisations, mostly taking the form of central co-operative societies. In common with their members, these central bodies are at present suffering very severely from the crisis.

The Union of Polish Co-operative Societies includes also among its members a considerable number of agricultural trading associations in the central provinces and also district depots and depots belonging to farmers' clubs in the provinces in the south. In 1929 depots and warehouses to the number of 97 were registered as co-operative societies and were attached to two central trading bodies with headquarters at Warsaw and at Kracow respectively.

(e) *Consumers' Co-operative Societies in Rural Districts.* — The object of these societies is to provide for the requirements of farm households and also in part of the farms themselves. It was stated on an earlier page that 2,547 Ukrainian Co-operative Societies, attached to the Audit Union of the Ukrainian Co-operative Societies of Lwów, were organised on these lines.

They have a central financial organisation and two central trading bodies. Although so numerous, these societies are by means strong and the individual turnover is on a small scale.

The consumers' rural co-operative societies attached to the Union of Consumers' Co-operative Societies of the Polish Republic, with headquarters at Warsaw, (*Zurazex Spółdzielni Spożywców Rzeczypospolitej*), are of an independent character. They are ordinary consumers' societies, which at the same time provide the farms with artificial fertilisers and with feeding-stuffs and buy their wheat and other products.

(f) *Co-operative Societies for the sale of Slaughter Cattle.* — These societies made satisfactory progress in the area of the former pre-war Galicia, and steps were taken to establish district societies, which were engaged in selling pigs on commission and also a certain number of cattle in Vienna and Prague.

The post-war period was characterised by continual changes in arrangements for marketing animal products. At certain periods a higher rate of profit was to be made by the export of live cattle to foreign countries, at others by the sale of hams and bacon. In these conditions the normal development of the co-operative societies for marketing slaughter cattle was checked. At the present time there remain a few dozen societies of this type, mostly engaged in selling animals on commission.

The egg-selling societies form a group apart and will be discussed in the next chapter as they are always associated with the dairy societies.

VII. CO-OPERATIVE DAIRIES.

(a) *General Remarks.* — The establishment of the co-operative dairies in Poland dates from the end of the XIXth and the beginning of the XXth centuries. Before the war they were fairly successful in the form of small co-operative societies, receiving their milk supplies from their members in the locality. The war seriously interfered with their activities but could not destroy them altogether. The movement is gradually gaining strength again and is coming to play an increasingly important part in the economic life of rural Poland.

The dairy societies have suffered less from the crisis than the agricultural trading societies and the savings and loan banks. The explanation lies in the fact that the societies sell members' milk on commission, have no owned capital, do not use bills of exchange and do not have recourse to other kinds of credit and hence do not make bad debts in consequence of the insolvency of their debtors. They are thus in a position to carry on business even in the most unfavourable conditions.

Table IV shows that there were 1,420 dairy societies belonging to central organisations at the end of 1930, of which 948 were attached to the Unions, which were members of the Confederation of the Unions of Agricultural Co-operative Societies of the Republic of Poland and 187 were members of the Union of Polish Co-operative Societies, while 162 were Ukrainian and 123 German Societies.

As a rule these societies are on a quite small scale and only the co-operative dairies in the Western provinces are slightly larger while some of the largest of all are to be found scattered among the eastern and central provinces. In almost all the Polish co-operative dairies manual labour is used for driving the machines and in this respect they differ from the co-operative dairies in other European countries, where mechanically driven motors are employed.

The work of a dairy is bound to be on a limited scale if it has no branches, for the milk must be provided daily. As will be seen from the following table, half the dairies to which the 1930 statistics refer and members of the Confederation of the Unions of Agricultural Co-operative Societies, 897 in all, have no branch organisation :

Dairies having no branches	444
» » one branch	129
» » two branches	116
» » three branches	65
» » from 4 to 10 branches	126
» » more than 10 branches	17

(b) *Dairy Societies belonging to the Confederation of the Unions of Agricultural Co-operative Societies.* — Among the 947 dairies belonging to the above mentioned Confederation in 1930, there were 173 in the province of Warsaw, 133 in the provinces of Lublin, 115 in the province of Łódź, 98 in the province of Kracow, etc. The area of operations of a society of this type covered 379 square kilometres and 3,253 farms. About 6.4 per cent. of the farms belonged to the co-operative

societies of the Confederation but this figure varies greatly in the different provinces. Thirty-four farms on an area of 140 square kilometres supply a given collecting station.

The total number of agriculturists belonging to the Confederation dairies was 193,000. The majority were owners of small farms having an area of less than 20 hectares and 5,600 farmed upwards of 20 hectares.

A set of specially compiled statistics showed that 892 co-operative societies had a total membership of 203,000 persons (including non-agriculturist members) owning 380,000 cows; thus each society had on the average 225 members owning 426 cows.

Hence it will be seen that the co-operative dairies belonging to this group have a membership consisting mainly of small farmers and that the number of cows per member is less than two.

The majority of the dairies, 833 in number, used their milk for butter-making and there were in addition 86 creameries, 2 cheese factories, while 25 others sold fresh milk.

The co-operative dairy societies have a tendency to form themselves into larger bodies and many of them have already been re-organised with this end in view through a combination of neighbouring dairies. Notwithstanding this tendency however, the number of dairies belonging to the Confederation has increased rapidly from year to year. Whereas the number was 166 in 1924, by 1930 it had already risen to 946. Similarly the number of cows registered rose from 81,500 in 1925 to 380,000 in 1930 and the amount of milk supplied from 30 million litres in 1925 to 320 million litres in 1930. The aggregate balance sheet total was 685,000 zlotys in 1924 and 19,000,000 zlotys in 1930 and the amounts paid for milk supplied were 4,957,000 zlotys and 51,289,000 zlotys respectively.

These societies have two central trading bodies, one at Warsaw and the other at Kracow. Both are in the nature of co-operative central bodies and are chiefly engaged in the wholesale marketing of butter, cheese, eggs and a limited amount of milk and they carry on a considerable export trade. Thus the central trading body at Warsaw in 1930 handled 3,383,000 kg. of butter of which 1,065,000 kg. were exported to other countries. The Central trading body at Kracow handled 2,157,000 kg., of which 885,000 kg. were exported

(c) *Co-operative Dairy Societies belonging to the Union of Polish Co-operative Societies. The German and Ukrainian Co-operative Dairies.* — The characteristic feature of the Polish co-operative movement in the area that was formerly Prussian in the prewar period was that in general only the Popular Banks and the "Rolniki" described in previous pages were established. The district also had no Polish co-operative dairies. These only came into being after the war and are now to be found in limited numbers in the provinces of Poznan and Pomerania. They are considerably larger than those in the central provinces. In 1930 there were 51 of these societies affiliated to the Union, whereas in 1929 their number was 43, though the quantity of milk supplied was large, amounting to a total of 72,536,000 kg. with an average of 1,687,000 kg. for each dairy.

As already stated, the amount of milk furnished to the co-operative societies which were members of the Confederation was much lower.

The Finance Union of the Co-operative Dairy Societies at Poznań (*Związek Gospodarczy Spółdzielni Mleczarskich*), which dates from 1927, serves as the central organisation of these dairies. In 1929 its trade in butter amounted to 2,564,000 kg. of which a large proportion was for exportation.

Co-operative dairies, 136 in number, with membership in the Union of Polish Co-operative Societies at Warsaw and similar in character to those of the Confederation, were also in 1930 members of the Federation of the Unions of Polish Co-operative Societies.

The German co-operative dairies were organized some time before the war in the former Prussian territory and were fairly successful. They are however on a smaller scale than the societies in the same area which belong to the Union of Polish Cooperative Societies.

The Ukrainian dairy societies are of no great importance.

(d) *Egg-collecting Depots.* — Egg-collecting depots are chiefly to be found at the co-operative dairies and there is in Poland only a small number of special societies for the sale of eggs. There were, however, 146 egg-collecting depots belonging to the societies attached to the Confederation in the former Russian territory. Several of them collected less than 10,000 eggs and the majority from 10,000 to 100,000, while 13 depots in 1930 obtained over 100,000 eggs apiece.

Poultry breeding in Poland has not as yet been seriously developed and the organisation of egg selling leaves much to be desired. The first steps however have been already taken and as the dairy societies, which are interested in the collection and sale of eggs, are fairly numerous and distributed throughout Poland, they may be able to serve a very useful purpose in this connection.

The central trading bodies of the co-operative dairies at Warsaw and Kracow, already mentioned, are engaged in the wholesale trade and in 1930 sold 7,852 cases, each holding 1,440 eggs.

VIII. — MISCELLANEOUS AGRICULTURAL CO-OPERATIVE SOCIETIES.

There are also to be found in Poland a number of co-operative societies which do not come under any of the categories discussed above, but they are not particularly numerous. The Union of Agricultural Co-operative Societies of Warsaw (*Warszawski Związek Spółdzielni Rolniczych*) includes among its members a few market gardeners' and gardeners' and beekeepers' societies, one society for the sale of the products of rural industries, four co-operative mills and bakeries, 3 fruit-growers' societies, a certain number of societies for building workmen's dwellings and of rural house building societies together with four flax-growers' societies. The last-named are all to be found in North Poland in the flax growing area and their principal function is to assist their members in separating the seed or otherwise treating their flax and sometimes they undertake to carry out sales on behalf of members.

The societies connected with building which have been mentioned usually assist their members in purchasing building materials, and therefore are often quite short-lived.

Similar societies, with the exception of the flax-growers', are also to be found in other parts of Poland but in no large numbers. In Pomerania there are three co-operative rural distilleries and two electric power supply societies; seven power supply societies have also been established in Silesia.

Prof. Z. LUDKIEWICZ.

INSURANCE

Hail Insurance in Hungary.

In 1931 the following societies were dealing with hail insurance in Hungary:

Első Magyar Általános Biztosító társaság (First Hungarian).

Foncière Általános Biztosító-intézet (Foncière).

Hazai Általános Biztosító-Részvénytársaság (National).

Magyar Francia Biztosító-Részvénytársaság (Franco-Hungarian).

Magyar-Hollandi Biztosító-Részvénytársaság (Dutch-Hungarian).

Magyar Jég-es Vízontbiztosító - Részvénytársaság (Hungarian Hail insurance).

Penzintézetek (Association of Financing Institutes).

Turul Magyar Országos Biztosító r. t. (Turul.)

Donau Allgemeine Versicherungs-Aktiengesellschaft, Vienna

Phönix Allgemeine Versicherungs-Aktiengesellschaft, Vienna.

Riunione Adriatica di Sicurtà, Trieste.

Royal Exchange Assurance Corporation, London.

Sun Insurance Office Ltd, London.

Első Keresztény Biztosító Intézet r. t. (First Christian).

Gazdák-Biztosító-Szövetkezete (Farmers' Insurance Association).

Pátria Általános Biztosító Részvénytársaság (Patria).

The "Der Anker," company which during 1930 also undertook hail insurance has suspended activities in this branch.

The first 13 companies, including eight Hungarian and five foreign, form an insurance Pool regulated by the new agreement entered into between the companies, which came into force on August 1931 (1). The object of this agreement is the diminution of insurance risks by means of suitable distribution of risk and to ensure, by organising the valuation of damages by joint bodies, the equitable and effective settlement of claims in respect of damage by hail. It is considered by the companies forming this Pool that they can offer to farmers the opportunity of taking out insurance against hail on the most advantageous terms possible and that at the same time the interests of the companies thus grouped are protected

(1) The information as regards the Pool, has been kindly communicated by the First Hungarian Company.

by the agreement. The signatory companies have, in accordance with the objects referred to, undertaken to keep statistics in common, and on this basis to agree on principles, rates of premium and conditions and at the same time to observe with strictness the provisions of the agreement, and to avoid everything contrary to the letter or spirit of the agreement in question, or in other words to the common interests of the members of the Pool.

An account will now be given of certain provisions of interest relating in particular to the taking out of insurance policies, to the work of the companies forming the Pool, to the adjustment of losses (*Schadenausgleich*), to the relations of the associated companies with companies not participating in the agreement, to the administrative bodies of the Pool, and finally to the contractual consequences of any failure to observe the agreement.

The companies forming the Pool are bound to effect hail insurance: (a) only on the basis of the general conditions agreed between themselves; (b) without at any time fixing premiums and additional charges at lower figures than the rates agreed and only in accordance with the provisions relating to these rates; (c) only with strict observance of any other provisions jointly agreed on for the effecting of hail insurance (e. g. provisions relating to maximum prices, the period that may be fixed for acceptance of the policy, the exclusion of certain crops from insurance); (d) utilising exclusively the schedules jointly agreed on relating to insurance proposals as well as any such schedules the use of which has been contemplated at the time of the effecting of the hail insurance contracts.

The general conditions of insurance cannot be altered except by a decision of the managing bodies of the confederated companies, taken after consulting the Rates Committee. The Schedules of rates agreed upon can be altered only under the same conditions.

The maximum prices up to which, in accordance with the general conditions, the different crops may be insured must be fixed by a decision of the associated companies. The same holds good as regards the period fixed for the acceptance of the policy, and the exclusion of certain crops.

Exceptions to the rules included in the schedules of rates agreed upon are admissible provided the consent of the associated companies is obtained.

Losses for which the associated companies are liable must be at once notified to the Office of the Pool. The associated companies must take no part in the determination or estimation of damages. The joint Office for such estimation and for determination of the amount of compensation payments undertakes these duties in the name of the company or companies concerned. Payments or refusals to pay are made directly by the company concerned in accordance with the decision of the Office. The companies have no power to make compensation payments to claimants that are either higher or lower than the amounts fixed by the Office, nor have they power to compensate if the Office has considered that there is no claim for compensation.

Every year making any settlement of claims the Office has to submit to the associated companies a list of the claims pending with a brief note on the state of affairs in each case.

Associated companies are not allowed to give their principal agents commissions amounting to more than 10 per cent. of the net premium and local agents more than 7 per cent. of the net premium. Apart from this commission no other bonus is given.

The system of adjusting the payment of claims between the different companies may be described as a partial pooling of the losses and is, in fact, equivalent to a form of re-insurance. The associated companies enter into an undertaking to participate in this adjustment within the limit of 50 per cent. of the hail insurance business done by each of them. The adjustment is made when in the course of a particular year the amount of the claims paid by any one or more of the associated companies (including the share of the cost of estimating the damage) exceeds 70 per cent. of the net premiums received (not including additional charges), this limit of 70 per cent. being fixed by the pooling agreement. In calculating the adjustment to be made, the basis of calculation is the premium which is in accordance with the insurance contract, even in the case of policies in which the premiums are lower than those set out in the scale of premiums fixed by the pooling agreement, as for example when an exceptional scale has been adopted with the consent of the other companies..

Some further details in regard to the system of adjustment will serve to elucidate the above statement.

If, in the course of a particular year, a company has to pay, or several companies have to pay, claims beyond the limit fixed by the pooling agreement (that is, greater than 70 per cent. of the net premiums), each such company will be paid the amount by which 50 per cent. of the claims paid by it (including 50 per cent. of the costs of estimating the damage) exceeds the limit fixed by the Pool agreement. The total amount of this payment will be borne by the companies which have paid claims not reaching the limit fixed by the Pool agreement, and the share of each company in such payment will be proportionate to the difference between the limit fixed by the Pool agreement and the claims actually paid (including the costs of estimating the damage).

If, in the course of a particular year, the hail insurance companies, taken as a whole, pay claims exceeding the limit fixed by the Pool agreement, the adjustment will be made on the basis of the average percentage relation between the claims paid and the total business of the companies. This percentage is arrived at by comparing the net premiums (additional charges not included) on the one hand and the claims paid (including the costs of estimating the damage) on the other hand. In making the adjustment on the basis of the average percentage, the companies which have paid claims below the average percentage are expected to pay over to the other companies the amount by which 50 per cent. of the claims actually paid by them (including 50 per cent. of the costs of estimating the damage) falls short of the sum to which these would have amounted if the percentage relation between the claims paid and the net premiums had been the average percentage. The sums so paid over are distributed amongst the companies which paid claims exceeding the average percentage in such a way that each of them receives the amount by which 50 per cent. of the claims actually paid by them (including 50 per cent. of the costs of estim-

ating the damage) exceeds the sum to which these would have amounted if the percentage relation between the claims paid and the net premiums had been the average percentage.

The calculations required for the adjustment are made by the joint Bureau the functions of which also include: supervision of the precise observance of the contractual provisions in hail-insurance, valuation of damage to crops affecting associated companies, establishment of statistics of hail-insurance in the territories which are insurance areas for associated companies. The calculations in question must be made in the first instance without reckoning claims pending. As each of these is settled the adjustment of the payment of claims relating to the year in the course of which the damage in question occurred will be revised by reckoning that damage, unless some other procedure is decided upon by the managing bodies of the associated companies by a three-fourths majority. If a premium, which has been already calculated in the determination of the adjustment of a given year, is cancelled in the course of a successive year, the provisions relating to the subsequent readjustment as stated above will be applicable by simple analogy.

Decisions on matters relating to the Pool are reserved to the managing bodies of the associated companies except for some decisions which are especially entrusted to the Conference of Representatives. Every decision on the part of the managing bodies of the companies is taken either at a Conference of managers or by means of a written vote. Every managers' meeting is empowered to take a decision if at least three fourths of the associated companies are validly represented and if the president shows that proper summons have been sent to the companies not represented. If nothing has been arranged to the contrary in the pooling agreement, all decision is by unanimous vote of the companies represented. Any abstention from voting is considered as a positive vote. Any vote conditioned or given under reserve counts as a negative vote. If a majority vote is provided for in the pooling agreement, this majority must be calculated on the number of companies represented.

Managers' meetings are held as a rule twice a year, one in the spring and one in the autumn. Extraordinary meetings are called if at least three associated companies make a written request to that effect.

Conferences of representatives, consisting of officials with powers conferred by the companies to which they belong, are held as required. These are called on the decision of the directing company or on the request of at least two associated companies. All decisions passed either in a managers' meeting or by means of written vote or even by a meeting of representatives are binding for all the companies and from the legal standpoint must have the same force as the provisions of the agreement itself.

As regards the relations of the associated companies with the non-associated companies, the former are bound not to undertake re-insurance for the latter within the areas for hail insurance under the Pool, nor to take over any risks assumed by them. Similarly the non-associated companies have no power to reinsure the risks of the associated companies. In the insurance areas of the Pool, joint insurance with non-associated companies (either by collective policies, or

by independent documents) can only be effected if it is agreed by a three fourths majority of the associated companies.

The pooling agreement provides for sanctions applicable to a company or a body representing it which by its action or by failure to act violates the provisions of the agreement or fails to comply with them or acts contrary to the spirit and the letter of the agreement, or in other words acts counter to the common interest of the associated companies. In this case the company in default is obliged to repair the wrong done and to compensate any company which has suffered loss. Such compensation may not exceed 15,000 pengös. In addition a money fine is charged the amount of which is fixed by the agreement. This fine is remitted only in the event of the *bona fides* of the company in default having been proved.

In order to guarantee the payments of all the charges arising out of membership of the Pool, each associated company must deposit a guarantee of 8,000 pengös. A special fund for this purpose exists at the National Hungarian Bank at Budapest.

Among the companies not forming part of the Pool, the most important is the Farmers' Co-operative Insurance Society (*Gazdak*) which was founded in 1899. At that time the position was that farmers, particularly in respect of hail and fire insurance, had no choice but to insure themselves with insurance companies which had formed a ring amongst themselves. These organisations, after the great hailstorms of 1897 and 1898, had by a stroke of the pen increased hail insurance premiums by 100 per cent. It was largely so as to free themselves from this dependence that the farmers founded an Insurance Institute in the form of a co-operative society. The post-war financial disorder forced the society to make a temporary agreement with the large insurance companies and to link itself with these with a view to protection of interests and the fixing of the level of insurance premiums. With the stabilisation of the currency in Hungary in 1927 the co-operative society severed its connection with the insurance companies.

This co-operative society received no grant or subsidy from the State and the shares held by the State amounted to a sum of 1,238,400 pengös only. Among the members of the managing body were delegates of the Ministry of Agriculture, the National Chamber of Agriculture and the National Society of Hungarian Agriculture. At the beginning this society undertook fire and hail insurance business only but several years ago it extended operations to other branches, including life and accident insurance, live stock insurance, etc.

The following are some figures relating to this society. At the end of the first financial year, that of 1901, the share capital of the society was 1,668,080 crowns; at the end of the year 1925 as the consequence of the depreciation of the currency it amounted only to 3,315,120 paper crowns; in 1927 it was 1,546,000 pengös, and in 1930, 1,546,000 pengös. At the end of the first year the reserves were 37,621 crowns while in 1927 they amounted to 2,125,408 pengös and in 1930 to 3,633,000 pengös. In 1901 the number of insured persons rose to 8,000 while at the end of 1928 the co-operative society had a membership of 200,000 insured persons,

Insurance societies are regulated under Law VIII of 1923 (1).

Before the war there was very little legislative regulation in this respect. Under the commercial law it was prescribed that insurance societies must show, for each branch of insurance that it was desired to undertake, actual payments of 200,000 gold crowns as guarantee. Apart from these deposits, the formation of insurance societies or of branches of foreign companies was left free, as was also the activity of the societies. The system of concessions was regulated by the Law of 1923. Concessions are made in respect of the foundation of new insurance societies, the establishment of branches by foreign companies, and even of the changes in the branches of business undertaken by the already existing societies.

For obtaining a concession it is essential first to bring proof of the existence of a guarantee fund of 250,000 gold crowns for each of the branches of insurance that is to be undertaken by the society in question. The Government reserved to itself the right to suspend for a certain lapse of time the grant of new concessions. In fact a Governmental Decree had prohibited up to 30 June 1932 the formation of new insurance societies, as well as the setting up of new branches by foreign companies.

By Law VIII of 1923 the supervising authorities and the Guarantee Councils were also established. The former constitute a State organisation attached to the Ministry of Finance, exercising supervision over all insurance business. Reports must be submitted to these authorities by the insurance societies in regard to their general conditions, policies, terms offered, prospectus, etc. The insurance societies are expected to invite the supervising authorities to be present at their general meetings and must submit to them their final reports and statements. The Guarantee Council consists of delegates of the Ministries, and of the insurance companies and insured persons, and constitutes the advisory body of the supervising authorities.

Law VIII of 1923 deals with the premium reserves, which must be employed in the purchase of Hungarian State bonds, of land mortgage bonds or of other securities, in making loans on pledge guaranteed by such securities, loans granted on the guarantee of the securities themselves, mortgage loans on lands or buildings up to half the value, loans on revenue-producing houses up to 10 per cent. of the premium reserves.

As regards reserves of insurance premiums against damage a large proportion of the reserves may be employed in bank deposits, whereas, in the case of life insurance, bank deposits can form only a limited proportion. Additional facilities may be granted by the supervising authorities.

Reserves of insurance premiums received in foreign currency must, in conformity with this Law, be invested or deposited in the same currency as that in which the insurance has been taken out and in values considered as sound by the supervising authorities. Foreign companies are expected to leave in Hungary the reserves of premiums on business done in that country.

(1) *L'Assurance Moderne*, 1931, p. 325.

State supervision of the insurance societies tends to become stricter (1). A Ministerial Order of 21 June 1930 contains among other provisions an important one under which the supervising authority may dissolve a national society and prevent a foreign company from continuing insurance business if these undertakings have for two years past done no insurance business or have effected only a very limited number of transactions, making a covering of risks improbable, and if for this reason it is justifiable to doubt if the engagements made with insured persons can be kept.

In accordance with a provision published in 1931 by the supervising authority (2) the insurance societies must also give in addition to the prescribed information: information on the premiums and on the additional charges, that is in regard to additional dues (handling charges, policy fees, supervision fees, stamp duty and other charges of the same kind).

In the data relating to the premiums and additional charges distinction must be made between business effected directly or indirectly, business transferred for reinsurance and business retained at the insurer's own risk, Hungarian business and foreign business, etc.

The information relating to claims and to indemnity reserves must include (a) the claims paid; (b) the indemnity reserves brought forward from the previous year; (c) the amount of claims pending brought forward from the previous year; (d) the indemnity reserves at the end of the financial year; (e) the amount of the claims paid in the course of the financial year. As in the case of the premiums, in these data distinction must be made between business effected directly or indirectly, within the country or abroad, etc.

Rules relating to the insurance contract are codified in the Commercial Code of 1875. Very important amendments and additions have however been made by a number of later measures. The object of Law X of 1927 (3), which dealt with certain questions regarding payment of the insurance premium, was to complete certain lacunae existing in the Commercial Law in respect of the general legal principle of insurance and of the limits of insurance periods; at the same time the Law extends the duration of the validity of the insurance contract.

Whereas according to the Hungarian commercial law the insurance contract against losses ceases to have validity if the premium payable at given periods is not paid when due, the Law of 1927 enacts that in such a case the contract shall not cease to be valid but that the insuring body may demand the fulfilment of the contract. As regards the insured person, he has the right to denounce the insurance contract at the end of six years, on condition of a periodical payment of the premiums; this right cannot be waived in advance. Other provisions follow relating to the duration of the contracts.

On 18 December 1928 (4) the Government published an Order the object of which was to regulate the legal position of the insurance agents, a ruling which

(1) *Zeitschrift für die gesamte Versicherungswissenschaft*, 1 October, 1930, v. 106.

(2) *Die Versicherung*, 14 January 1932, p. 43.

(3) *Year-book of Foreign Legislation* 1927, p. 69.

(4) *Ungarisches wirtschaftliches Jahrbuch*, 1929, p. 284; 1930, p. 343; 1931, p. 315.

had been omitted in the section of the Commercial Code of 1875 devoted to insurance. This Order contains rules of private law and also measures of administrative law. As regards the former, they are based on the German and Austrian legislation on the insurance contract: *inter alia*, in the distinction made between intermediary agents and agents with full powers to conclude agreements.

The measures of administrative law contain detailed rules on the content of instructions to agents, impose on these the obligation of showing the instructions to the insured persons, and impose on the societies the obligation of drawing the attention of the insured person to the name and area of operations of the agent.

Very extensive powers have been conferred on the supervising authorities in regard to the punishing of agents who have transgressed the provisions of the Order. The penal power of the supervising authority goes to the length of having the right, in case of or in the event of the agent committing a breach of good manners or failing in his trust, to prohibit him from doing business for a limited period or even entirely. In pursuance of article 13 of the new Law on insurance by which the Government has the duty of regulating afresh the whole sphere of the insurance contract in a systematic codification, the Minister of Justice has had drawn up a scheme of regulation of insurance contracts.

This scheme has been submitted to the persons concerned, but although its advantages have been recognised, the opinion has been expressed that present day economic conditions are not favourable for the introduction of a reform of such extensive scope. In a report drawn up in three languages, the National Union of Insurance Institutions (BIOS₃: *Landesverband der Versicherungsanstalten*) some prominence is given to the idea of an international unification of the legislation relating to the insurance contract. The Economic Committee of the League of Nations has deputed the study of the question to the International Institute of Private Law at Rome. At the same time the proposals made by the National Union of Insurance Institutions have evoked considerable interest on the part of the International Law Association, and a Committee of this Association has been formed for the purpose of studying the law of insurance and the question of unification of the law of insurance has been placed upon the agenda of the next Congress of this Association.

At their general meetings of 23 March 1932 the associated companies resolved on the introduction of the non-liability clause (1).

After two years of heavy losses (1924-25) the increase of premiums had been already resolved upon, as well as the introduction of complete non-liability up to 5 per cent., a measure which did much to improve the position by the suppression of compensation payments for trifling damage and by effecting economies in the costs of estimating damage. The insurance companies were however forced by more recent experiences to go further and to introduce a new schedule of rates including both higher premium rates and at the same time an extension of non-liability. In the case of insurances effected under the new

(1) The following statement is based mainly on an article by M. Lengyel: Die Einführung der Abzugsfranchise im ungarischen Hagelgeschäft. *Die Versicherung*, No. 13, Wien, 31. März 1930.

schedule, the following alternatives are open: (a) if the new higher rates of premiums are applied, full compensation of losses may be paid; (b) if the premiums are subject to 10 per cent. reduction, then compensation is not given for losses below 5 per cent.; (c) if a 20 per cent. reduction of premiums has been arranged, then the non-liability applies to damage below 5 per cent.; (d) for a 30 per cent. reduction of premiums, a non-liability for damage below 8 per cent.

The Office of the Pool dealing with estimation of damages has tabulated very important figures, relating to the effect of non-liability in the course of 1928, 1929, 1930 and 1931. For these four years damages have been grouped according to the percentages of damages.

The following are the tables referred to:—

Percentage of damages	Mean percentage of damages	Total	Reduction in the case of non-liability	
			of 5 %	of 8 %
FINANCIAL YEAR 1928.				
<i>Gross Premiums: pengos 6,062,093</i>				
up to 5 %		304,286	of $\frac{1}{1}$ 304,286	of $\frac{1}{1}$ 304,286
6- 10 %	8	516,253	» $\frac{5}{8}$ 322,658	» $\frac{1}{1}$ 516,253
11- 20 %	15	490,961	» $\frac{5}{15}$ 163,654	» $\frac{6}{15}$ 261,848
21- 30 %	25	276,585	» $\frac{5}{25}$ 55,317	» $\frac{8}{25}$ 88,504
31- 40 %	35	193,469	» $\frac{5}{35}$ 27,638	» $\frac{8}{35}$ 41,201
41- 50 %	45	160,965	» $\frac{5}{45}$ 17,885	» $\frac{8}{45}$ 28,610
51-100 %	80	1,150,268	» $\frac{5}{80}$ 71,892	» $\frac{6}{80}$ 115,027
		<hr/> 3,092,787 <hr/>	<hr/> 963,330 <hr/>	<hr/> 1,358,735 <hr/>

FINANCIAL YEAR 1929.

Gross Premiums: 4,889,045 pengos

up to 5 %		272,334	of $\frac{1}{1}$ 272,334	of $\frac{1}{1}$ 272,334
6- 10 %	8	531,762	» $\frac{5}{8}$ 322,350	» $\frac{1}{1}$ 531,762
11- 20 %	15	413,640	» $\frac{5}{15}$ 137,880	» $\frac{8}{15}$ 220,608
21- 30 %	25	206,273	» $\frac{5}{25}$ 41,254	» $\frac{8}{25}$ 66,008
31- 40 %	35	167,988	» $\frac{5}{35}$ 23,098	» $\frac{8}{35}$ 38,392
41- 50 %	45	110,006	» $\frac{5}{45}$ 13,223	» $\frac{8}{45}$ 21,152
51-100 %	80	659,978	» $\frac{5}{80}$ 41,225	» $\frac{6}{80}$ 65,908
		<hr/> 2,370,981 <hr/>	<hr/> 852,264 <hr/>	<hr/> 1,216,254 <hr/>

Percentage of damages	Total	Mean percentage of damages	Reduction in the case of non-liability		
			of 5 %		of 8 %
FINANCIAL YEAR 1930.					
<i>Gross Premiums: 4,834,875 pengos</i>					
up to 5 %		280,718	of $\frac{1}{1}$	280,718	of $\frac{1}{1}$ 280,718
6- 10 %	8	483,231	" $\frac{5}{8}$	302,023	" $\frac{1}{1}$ 483,231
11- 20 %	15	403,747	" $\frac{5}{15}$	134,582	" $\frac{8}{15}$ 215,331
21- 30 %	25	264,703	" $\frac{5}{25}$	52,860	" $\frac{8}{25}$ 84,576
31- 40 %	35	215,402	" $\frac{5}{35}$	30,772	" $\frac{8}{35}$ 49,235
41- 50 %	45	185,595	" $\frac{5}{45}$	20,622	" $\frac{8}{45}$ 32,994
51-100 %	80	817,566	" $\frac{5}{80}$	51,098	" $\frac{8}{80}$ 81,757
		<u>2,656,568</u>		<u>878,675</u>	<u>1,233,848</u>

FINANCIAL YEAR 1931.					
<i>Gross Premiums: 3,674,192</i>					
up to 5 %		291,121	of $\frac{1}{1}$	291,121	of $\frac{1}{1}$ 291,121
6- 10 %	8	494,920	" $\frac{5}{8}$	309,325	" $\frac{1}{1}$ 494,920
11- 20 %	15	502,244	" $\frac{5}{15}$	167,415	" $\frac{8}{15}$ 267,864
21- 30 %	25	378,985	" $\frac{5}{25}$	75,799	" $\frac{8}{25}$ 121,275
31- 40 %	35	298,089	" $\frac{5}{35}$	42,584	" $\frac{8}{35}$ 68,136
41- 50 %	45	248,979	" $\frac{5}{45}$	27,665	" $\frac{8}{45}$ 44,262
51-100 %	80	1,018,916	" $\frac{5}{80}$	63,682	" $\frac{8}{80}$ 101,892
		<u>3,233,254</u>		<u>977,591</u>	<u>1,389,470</u>

This fixed non-liability clause in the course of the four financial years has effected the following reductions, expressed as percentages, in the compensation payments:

	In the case of non-liability fixed at 5 %	In the case of non-liability fixed at 8 %
1928.	31.14	43.93
1929.	35.94	51.30
1930.	33.07	46.44
1931.	30.23	42.97
Average	<u>32.59 per cent.</u>	<u>46.16 per cent</u>

As proof of the exactness of the calculations, it has been remarked that in spite of the very different results of the four years to which the statistics refer,

the percentage of saving in the compensation payments, whether in the course of good or bad seasons, has been the same and the variation from the mean does not exceed 10 per cent.

It seems the more remarkable that the ratio between the saving in the compensation payments and the premiums is, according to the results of different financial years, subject to very considerable fluctuations.

This relation between the saving in the compensation payments and the amount of premiums received appears to be as follows, taking into account the question of non-liability :

	With non-liability applying to damages under five per cent.	With non liability applying to damages under eight per cent.
1928	15.89	22.41
1929.	17.43	24.87
1930.	18.17	25.51
1931.	26.60	36.82
Total of the four years	73.09	109.61
Average per year	19.5 %	27.4 %

As these figures show differences of more than 50 per cent. for the years in question, it may be observed that the relation between the total of the compensation payments saved and the premiums must be left out of count in determining the non-liability, and that the reduction in the compensation payments must alone be taken as basis.

The Farmers' Co-operative Insurance Association (*Gazdák*) (1) decided to increase the premiums for the 1932 season by 20 per cent. and at the same time to allow, in the case of "self-insurance" of 5 or 8 per cent. of the insured sum or of a part of the insured crops, a deduction on the premiums of 25 or 30 per cent. This society was obliged to have recourse to these measures in consequence of the unfavourable results of the financial year 1931 in the course of which the damages, including the cost of estimation, amounted to 118 per cent. of the premiums. Since the beginning of operations of the society in hail insurance, the percentage of damages has been maintained at 71 per cent. except during the last few years in the course of which it has risen to 95 per cent. Although the *Gazdák* reinsures its risks at Lloyd's, it endeavours to build up once again its indemnity reserve.

Up to the taking of these last resolutions, the Hungarian societies had adopted the system of unconditional non-liability, that is to say, they made no payment in respect of losses below 5 per cent. while losses exceeding that figure were completely compensated. At the same time the alternative was offered of covering also the losses below 5 per cent. against the payment of a supplementary premium.

(1) *Die Versicherung*, No. 12, Wien, 24 März 1932, S. 165.

Statistics Compiled by the Valuation Office for Losses due to Hail, affecting Companies grouped in the Pool during the period 1920 to 1931.

YEAR	Number of policies	Total sums assured	Net premiums	Premiums and charges	Premiums, charges and cost of administration	Number of cases of damage to crops	Losses
		Crowns	Crowns	Crowns	Crowns		Crowns
1920,	5,019	862,143,686	23,250,206	28,803,294	—	1,837	10,715,554
1921,	5,891	2,061,944,684	50,908,570	62,711,633	—	2,498	18,449,084
1922,	8,743	7,555,099,047	170,377,828	184,219,643	211,693,643	2,648	71,763,181
1923,	7,921	69,349,540,838	1,370,990,834	1,503,783,778	1,707,035,555	2,074	525,432,730
1924,	11,010	1,387,970,380,992	27,198,587,406	29,002,414,197	33,984,063,151	5,209	45,880,125,811
1925,	22,170	2,098,382,970,330	47,980,961,572	52,226,997,186	59,431,138,994	11,085	51,870,770,210
		Pengos	Pengos	Pengos	Pengos		Pengos
1926,	25,929	140,505,249	3,592,103	3,884,898	4,421,088	6,870	1,407,224
1927,	24,845	156,368,600	3,370,513	3,688,484	4,193,267	6,150	2,402,506
1928,	34,509	225,394,557	1,875,582	5,328,325	6,002,003	7,838	3,101,707
1929,	37,689	187,616,232	3,935,156	4,208,001	1,889,015	9,802	2,371,141
1930,	48,092	172,574,843	3,902,371	4,250,251	4,831,873	11,990	2,678,498
1931,	39,150	130,024,580	2,968,080	3,233,931	3,680,101	12,126	3,218,151

The fact is worth noting that in the event of insurance of several kinds of products, the non-liability is not calculated according to the total sum insured, but in accordance with the insured value of the products injured by the hail.

According to an announcement made on 1 July 1932, the Ministry of Finance was preparing a scheme for the foundation of an Institute of State Reinsurance with the view of lessening the burden of the total payments resulting from the reinsurances contracted with foreign insurance companies.

The following is a statement relating to the gross premiums received and the gross losses paid by each company forming part of the Pool during 1931 (1):

	Premiums	Claims paid
First Hungarian	845,817	777,746
Foncière	237,599	197,419
National	346,413	245,994
Franco-Hungarian	293,553	183,672
Hungarian-Dutch	95,506	93,943
Hungarian Hail	565,430	587,774
Hungarian Hail insurance . . .	565,430	587,774
Association of Financing Institutes	51,261	32,505
Turul.	55,600	25,713
Donau	141,109	122,187
Phönix	193,336	123,878
Riunione	384,290	304,251
Royal-Exchange	488,996	501,323
Sun	45,684	29,514
	<u>3,744,594</u>	<u>3,225,919</u>

The following are the figures relating to premiums received and compensation payments made by the three societies which do not form part of the Pool during the years 1926-1931 (2), expressed in thousands of pengős.

		Gardak	Patria	First Christian
1926	Premiums	909	221	60
	Claims paid	404	93	41
1927	Premiums	935	205	107
	Claims paid	1013	206	78
1928	Premiums	1398	219	122
	Claims paid	1068	141	112
1929	Premiums	1172	174	103
	Claims paid	766	44	74
1930	Premiums	1268	175	117
	Claims paid	1140	173	67
1931	Premiums	1278	178	107
	Claims paid	1169	192	75

(1) *Die Versicherung*, No. 47, Wien, 19 November 1932, S. 738.

(2) *Assekuranz Jahrbuch*, n. 51, p. 655 and *Die Versicherung*, loc. cit.

The following is a table relating to hail insurance operations in effect in Hungary during 1929 grouped according to the main groups of products insured against hail (1).

	Hungarian companies	Foreign companies	Totals
Number of policies	44,442	10,442	54,884
<i>Total sums insured for by groups of products</i> <i>(in thousands of pengös);</i>			
Fodder grasses and various fodder crops	58	5	63
Maize, fodder beets and potatoes	7,156	1,642	8,798
Wheat	100,003	28,504	128,507
Meslin, rye, barley, oats, spring corn	78,455	24,524	102,979
Oil-yielding plants, legumes, sugar-beets, vetches for seed, millet, buckwheat	6,147	2,350	8,497
Millet, clover, seed, grass seed, poppies, rice and other commercial crops	1,229	460	1,689
Hemp, flax, hempseed, linseed	1,328	420	1,748
Vines, hops	2,143	732	2,875
Tobacco	3,109	1,007	4,116
Total	190,628	59,644	250,272
Premiums in thousands of pengös	4,069	1,274	5,343
Claims paid :			
Number of losses	10,470	2,484	12,954
Total claims paid (thousands of pengös)	2,442	755	3,197

F. A.

BIBLIOGRAPHY ON ECONOMIC AND SOCIAL QUESTIONS

DELOS Alb., Ing. Agr.: *Traité d'économie rurale*. Tome I: La terre. Encyclopédie agronomique et vétérinaire. Bibliothèque agronomique belge. N° 21. Gembloux, Jules Ducolot 1932. Price fr. 38

[The first volume of a treatise on Rural Economy has just been published by Jules Ducolot. Its author, Professor Delos of the State Agricultural Institute at Gembloux, treats his subject under two aspects; one dealing with "the realization of internal harmony in agricultural undertakings", the other dealing with the exterior relations between agriculture and the economic world. The whole structure of Professor Delos' work is the natural result of this basic conception of rural economy. The traditional economic subdivision of the three essential factors which influence agricultural production has been adhered to: land, capital and labour. The first volume is dedicated to the study of these factors: the land, its characteristics, value, improvements, taxation, systems of cultivation. Among the general causes which determine the value of the land, Professor Delos mentions the following: (a) the possibility

(1) Hungarian Annual Statistical Yearbook, 1930. Published by the Royal Hungarian Central Office of Statistics, p. 216.

of improving it; (b) the improvements and works executed or planned by public administrations; (c) the tastes and aspirations of the agricultural population in agricultural matters, (d) the systems of cultivation of the land, (e) the parcelling or rather the arrangement of the parcels of a certain property, (f) the size and nature of farms; (g) the labour available on the spot or obtained through migration

One chapter deals particularly with the legal aspects of landed property and agricultural exploitation. This part of Professor Delos' work is completed by a statement on present day agricultural taxation in Belgium. The next chapter deals with the systems of cultivation and crop rotation.

The second volume is dedicated to the study of the fundamental elements of fixed and circulating capital. The third volume will contain: (1) a study of the factor "work", from an economic and social point of view (2) a study of the results obtained through the working of the three factors mentioned above, i. e., an economic account of crop-farming and of animal husbandry.

It is Professor Delos' intention to dedicate the IV volume of his work to comparative rural economy, agrarian policy, industrial economy, marketing of agricultural and colonial products etc.

The 1st volume takes into account the experience made in various countries in regard to several fundamental problems of rural economy, and it emphasizes the present state of the organization of Belgian agriculture.

LANGE OSKAR: *Die Preisdispersion als Mittel zur statistischen Messung wirtschaftlicher Gleichgewichtsstörungen* (Veröffentlichungen der Frankfurter Gesellschaft für Konjunkturforschung, N. F. Heft 4). Hans Buske Verlag, Leipzig, 1932, S. S. 56.

[The book under review is an interesting contribution to the empirical study of the business cycle, in which the author makes an attempt to follow and to measure the inner working of forces tending to produce economic dislocations and crises. Hitherto, students of economic fluctuations have mostly focussed attention upon the price movements of particular commodities or upon changes in the general price level as represented by index numbers of prices. These methods of approaching the problem of economic dislocations, though valuable in the investigation of special problems, fail to reach the real root of the problem of economic dislocations and crises, since these are concerned with disturbances in the relations between the production and prices of the various goods and services rather than with the changes which occur in course of time in the general price level or in the prices of particular commodities. Investigation, therefore, should be directed towards the elucidation of the dislocations taking place in the balance of the various parts of the economic system, which is reflected in the disturbance of the interrelations of prices of the different commodities. This equilibrium must not be conceived as a static condition, because it is essentially dynamic, and economic evolution proceeds by innumerable and constant small dislocations in supply and demand and in prices, which stimulate and direct production and trade. A certain fluidity in the constitution and balance of the economic system must thus be considered normal and healthy, and the relatively slight shifts in this balance, which provide the shocks necessary to keep economic life going, are indispensable. Considered statistically, these shifts in economic equilibrium, which keep the system in motion, are naturally expressed in changes in the dispersion of prices about their respective trend values, and the more serious the disturbance of equilibrium, the greater will be these changes. In a period of normal economic activities in which no particular dislocations upset the balance of the economic system, and the latter is kept in regular motion by slight occasional shifts

taking place in its various parts, the prices of particular commodities tend to fluctuate within a restricted range about the imaginary lines representing their trends. These trend lines will form a sort of bunch, and the moving average of synchronous trend values of prices of the particular commodities will represent the general trend of prices. The dispersion of trend values of particular prices about the general trend, measured by one of the recognised measures of dispersion — preferably logarithmic —, will then show the extent of dislocations which can be considered as normal in a regularly functioning economic system. This dispersion of trend values of prices of particular commodities about their general trend can thus be looked upon as a standard for the determination of the extent of price fluctuations which are normal in everyday economic life and to which the author refers as *Gleichgewichtsverschiebungen* or shifts of balance. To find out whether a given price situation falls within the limits of such shifts of balance, or whether it represents a *Gleichgewichtsstörung* or dislocation of equilibrium of a more serious nature, involving a more or less prolonged and far-reaching disturbance or crisis, it is, therefore, necessary to compare the dispersion of actual price variations with that of corresponding trend values. A coefficient of dislocation, designated by the symbol Q , is thus found, representing a fraction of which the numerator is the logarithmic standard deviation of actual price variations and the denominator the logarithmic standard deviation of corresponding trend values. The coefficient should be 100 if the dispersion of actual prices is just normal, though in practice, owing to small current disturbances in actual price movements, which the author calls *Fraktionerscheinungen*, it will mostly, even under perfectly normal conditions, exceed it slightly. As the coefficient of dislocation is always calculated from a limited sample of price series, errors of sampling have to be taken into account, and only if the coefficient exceeds 100 by at least three times its average error (*mittleres Fehler*) within which range the excess may be accounted for by errors of sampling, is one in presence of a real economic disturbance which, if sufficiently pronounced, is referred to as a crisis].

G. P.

Pioneer Settlement. Cooperative Studies. American Geographical Society. New York, 1932. Special Publication No 14.

[The American Geographical Society of New York has made an interesting addition to its series of special pamphlets on problems of general importance. This volume, the 14th of the series, contains a number of co-operative studies on Colonisation and presents this problem under its most complex aspects. In a way these studies on Pioneer Settlement might be considered as a continuation and a completion of the « Pioneer Fringe » by Isaiah Bowman containing a discussion of the general principles of colonisation as illustrated by regional examples which the same Society published in 1931.

The present publication constitutes "a world survey of pioneer problems by specialists who have an intimate personal knowledge of the regions they discuss".

The editors observe that in some cases, experts may notice some discrepancies between conditions of today and the conditions prevailing at the time when the surveys were made. But it must be remembered that these studies were submitted to the American Geographical Society during a period of three consecutive years. The problems discussed however remain essentially the same. The studies go to show that the period of the picturesque acquisition of lands, difficult to conquer but highly remunerative when the conquest has been made, is over. Colonisation is today everywhere the result of the industry, ability, will power and adaptability of the pioneers to local conditions. Mechanical means play their own part in the ultimate success of colonising undertakings

Machinery has deprived the work of the pioneer of many of its more brutal elements. The spirit of the pioneer itself has changed considerably, inasmuch as he now faces his task knowing that he can count upon the mechanical means which will help him to overcome his greatest difficulties.

All this is amply demonstrated in the 22 studies which make up the volume.

The first part of the book contains a study of colonisation possibilities in North-western Canada, in the Prairie Provinces and in the great Northern Plains of the United States. The authors agree that the colonisation of these immense regions is hardly started, even though some sections may have been exploited for a considerable period of time and can no longer be strictly classed as pioneer lands.

Of particular interest are the studies on conditions in Alaska, in the furthest northern section of Canada and on the Northwestern fringe of the United States. Improved means of transport, new machinery and the adaptation of old crops or the introduction of new ones have made it possible to advance cereal growing beyond the limit of the Arctic Circle. This, in the opinion of experts, means that even such remote regions, which until a few years ago were considered unfit for human life, or at least for permanent colonisation, can be utilised for settlement.

Three very important studies on South American colonisation regions contain important conclusions. The Eastern coast line and valleys of the Andes, the enormous extensions of the Matto Grosso and of the Gran Chaco highlands and part of Patagonia have millions of acres available for cultivation, provided they are made accessible from and to distribution centres.

Then follow some studies on South Africa and certain sections of Northern Africa. As regards Northern Africa the author of the study on Algeria, Tunis and Morocco expresses the view that there is here a vast field for colonisation, provided certain conditions, such as the necessity of employing native labour, are taken into account. This condition applies also to South Africa, where intensive colonisation is possible and desirable.

The studies on North European Russia and Eurasia, on internal colonisation in the U. S. S. R. on Mongolia and Manchuria, with all the racial problems connected with colonisation work in those regions, constitute a series of chapters which are the more interesting as such regions are known to so few people. The casual reader will be able better to understand some of the political events which have occurred and are occurring in those parts of the world and would otherwise remain rather obscure.

The last part of the volume deals with the conditions and limits of colonisation in Tasmania and in New Zealand. Some sections of Australia seem to offer a particularly promising field to colonising enterprise, should the need for new land be felt.

Biographical notes on the authors of the various studies, a table of comparative measures and an index complete this interesting publication].

V. F.

UNION OF SOUTH AFRICA — Report of the Native Economic Commission 1930-1932. The Government Printer Pretoria 1932, pp. 345. Price: 2 s 6 d.

[The above Commission was appointed in June 1930 to enquire into and report upon *inter alia* the economic and social conditions of the native (1) population especially in the larger towns of the Union, and, in connection with the economic and social effect

(1) The word "native" is now used throughout the Union for the Bantu-speaking peoples. It is accordingly used in this Report, and is written with a capital initial letter. It is not regarded by the Commissioners as a very suitable word, but is adopted for purposes of convenience.

upon the European population of residence of natives in the urban areas, the measures, if any, to be adopted to prevent the increasing migration of natives into such areas.

It was recognised by the Commissioners that if such investigation was to have value and significance, it was essential to take count not merely of the small group of urbanised natives, but also of the great mass of the native population engaged in farming in the Union, whether farming their own lands in the "Reserves", or working on European farms.

It was accordingly resolved at the first meeting of the Commissioners that visits should be made to typical rural areas (including certain of the Native Reserves), and oral evidence taken in public session in respect to conditions. Among the witnesses so heard were a large number of Native Chiefs, members of Native Councils (administering the Reserves), as well as the Native Commissioners in various districts, other officials, missionaries, and farmers' associations. The Director of Native Agriculture gave oral evidence, in addition to presenting certain written reports. The first 60 pages of the Report, together with an addendum of similar length by a single member of the Commission, and several important appendices, deal with the native farming population and the resulting problems with special reference to the migration into towns.

An estimate made in 1929 showed that out of a total population of the Union of about 7.2 millions of all races, nearly four million are natives living in the Reserves, or rural areas set aside for native occupation under the Natives Lands Act of 1913, varying in extent in the different provinces. The number of natives working on European farms is probably at no time less than half a million, but is difficult to determine exactly, as it is liable to be increased during certain seasons by natives coming from the Reserves, and also owing to the fact that the census is not now taken in respect of non-Europeans.

Farming on the Reserves is conditioned by the methods of a primitive subsistence economy, characterised by a wasteful utilisation of the soil and a form of cattle-holding based on religious and social ideas rather than on economic considerations of any kind. The result is that the carrying capacity of the land is being diminished for live stock and human beings alike, owing to erosion, disappearance of nutritive grasses, destruction of timber, drying up of springs, and in short the creation of desert conditions. Even where, as in the Transkei, in the extreme north-east of Cape Province, ameliorative measures have been adopted in regard to cultivation, the persistence of over-stocking militates against the efforts to restore the natural fertility of the land. In this area, and in some others, the Native Councils have established Native Agricultural Schools in which younger educated natives can receive a training as demonstrators, and in this way very promising results have been achieved in raising the level of cropping methods practised; it remains however extremely difficult for these demonstrators, even though they are in a position to win the confidence of the tribal masses, to introduce against traditional prejudices the simple ideas of pasture and herd improvement by means of fencing and limitation of numbers to available feed. It is in fact the undeveloped state of the Reserves with consequent pressure of population on land and absence of scope or prospects for the more advanced natives, which is the main cause of the noticeable drift to towns. Extension of the native demonstrator system is regarded as the most hopeful method of combatting the evils, and the Director of Native Agriculture informed the Commission that the number of demonstrators should be increased from the existing 155 to 400 if any real impression was to be made within the next ten years on agricultural and pastoral methods in the Reserves.

In regard to native labour on European farms, the main question is that of the working of the so-called "labour tenancy", by which is understood the giving of services

for a certain period in the year to the farmer by the native and his family in return for the right to reside on the farmer's land, to cultivate a portion of land and to graze his stock on the farm.

By this system the farmers secure a supply of manual labour with little or no cash outlay, and the native who has been driven by shortage of land from the Reserves obtains land for his cattle. Various other privileges are usually granted, such as a building site and free use of available building materials; also, during the days of labour, food for the tenant's family and even sometimes cash wages. At the same time the system tends to give rise to disputes and friction; the natives complain of limitation of their live stock, poor quality of lands given for ploughing, etc. From the farmer's standpoint, since the native largely retains his far from progressive cropping and pastoral practices, the full value of the land is not being obtained, and hence it is increasingly felt that this method of securing a labour supply is uneconomic, the only reason for its retention on many farms being that there seems at present no satisfactory alternative. The discontent of the younger natives leads to their migration to the towns while the heads of families will sometimes depart with their herds and take to a wandering life. The system of labour tenancy is in fact disintegrating, although still deeply rooted in the special conditions of European landholding and native mentality.

The Commission recommends the enforcement of written contracts, and the gradual introduction of a system of payment by the farmer of an agreed cash wage and by the native of a regulated charge for use of land for cropping or grazing. One member of the Commission in a separate report recommends that it should be made possible to lease lands, in the areas reserved for European ownership, to natives on a cash rent basis, subject to stipulations as to proper utilisation of the land.

Throughout the Report stress is laid on the need for bringing about by education a change in the outlook of the native but it is also recognised that this must be a very gradual process. A great impetus has been given to the progress of the natives and of their agriculture by the appointment in 1929 of a Director of Native Agriculture in the Department of Native Affairs and by the enlightened attention devoted by the Director and his staff to the problems of the native cultivator alike on the Reserves and on the European farms in the Union.

In conclusion the following remark may be quoted from the addendum Report of one of the Commissioners, as bearing on the general question of the African native which has from time to time received attention in this Review. "One of the most serious obstacles in the way of the Natives' progress is the belief, prevalent among Europeans in the Union, that the Native is incapable of progress and must always remain backward. The falsity of this belief is shown in the success achieved by individual Union Natives in a profession such as medicine, teaching, farming, and by bodies of Natives in administering their own affairs; and its falsity is still further shown by the advance made in several parts of Africa, such as Nigeria and Tanganyika, where trust has been shown in the Natives' ability to evolve the necessary adaptation of their own institutions to meet the changes brought about in their lives by the coming of European civilisation. In the face of the evidence, it is idle to deny the capacity of the Natives to respond to intelligent guidance and training."

From the standpoint of the Union as a whole, a raising of the economic position of the Native with consequent increase in purchasing power must undoubtedly react beneficially on the general economic conditions].

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(1) Previous list December 1932. To be continued June 1933.

(2) List of abbreviations: bihebdl. (biweekly); bimens. (twice monthly); bimesr. (every two months); étr. (foreign price); hebdl. (weekly); int. (home price); irr. (irregular); mens. (monthly); N. S. (new series); q. (daily); sem. (half yearly); s. (series); v. (volume); trin. (quarterly).

(3) Between brackets [/] are given translations and explanatory notes not appearing in the title of the review.

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AGRICULTURAL ECONOMICS AND SOCIOLOGY

1933

No. 4

LAND SYSTEMS

Agrarian Reform in Spain.

I. — SPANISH AGRICULTURE BEFORE THE REFORM.

The boundaries of the Spanish Republic, which together with Portugal forms the Iberian Peninsula, are on the north the Cantabrian Sea and France, on the east the Mediterranean, on the south the Mediterranean, the Straits of Gibraltar and the Atlantic Ocean, and on the west Portugal and the Atlantic. The territorial area is 505,196.52 km. and there is a population of 25 million inhabitants.

The country consists of a great tableland of an average height of 700 metres above sea-level, divided into two parts, the Northern and the Southern tablelands, by the great mountain range of the Central system.

Spanish territory may be regarded as divided into the following agricultural regions :

A. *Inland.*

The lower Northern plateau. — Formed by the upper, or catchment, basin of the Douro and extending over 18.7 per cent. of the whole national territory.

The lower Southern plateau. — Formed by the upper or catchment basins of the Tagus and the Guadiana, and representing 25 per cent. of the whole territory.

The depression of the Ebro. — Including the regions which drain into the Ebro. This basin, which has a climate peculiar to itself, is frequently subject to long continued droughts. It represents 15.5 per cent. of Spanish territory.

B. *Transition regions.*

The Baetic or Andalusian Depression. — This consists of the Andalusian region, that is to say, the basin of the Guadalquivir, representing 13 per cent. of the whole territory.

C. *Coast zones.*

The Mediterranean zone. — Consisting of Catalonia, Castellon, Valencia, Alicante, Murcia, Almeria, Granada and Malaga. Similarities in the agriculture would indicate the inclusion of the island province of the Balearic Islands. This zone represents 16 per cent. of the territory.

The Cantabrian-Atlantic zone. — This zone includes all the provinces of the North of Spain and extends to 9.8 per cent. of the whole territory.

The Insular zone of the Canaries. — This is formed by the archipelago of the Canary Islands and represents 1.4 per cent. of the territory.

Nearly all these regions have certain affinities with other countries in regard to crops grown. As regards the Central plateau however the cultivation affinities are only to be found in the extreme east of Europe or western Asia. Otherwise the Cantabrian-Atlantic zone resembles in its agriculture Western Europe; the Mediterranean zone and the Ebro depression are agricultural regions very similar to those of Southern Europe, while the crops of the Andalusian depression much resemble those which prevail in that part of North Africa which borders on the Atlantic.

As regards conditions of plant growth Spanish soil may be considered as divided into two groups: one forming what is known as the *dry lands* of Spain occupying 90 per cent. of the territory, and the other formed by the remaining 10 per cent. constituting the *rainlands*. In the former group there is a characteristic reaction against drought, the rainwater falling on the waste lands being stored and used for the cultivated or cultivable lands by means of the various methods made possible by the technique of agricultural hydrography. Since this method of land improvement is costly and difficult, it is applied only to a limited area constituting the irrigation zones, while the other lands of this group form the zone of *arid lands*. The group of *rainlands* in Spain are characterised by the contrary procedure, that is to say, by the struggle against the excess of moisture, on account of which it is essential to drain, rather than to irrigate, the lands.

The following figures will illustrate the distribution of the soil in the territory of the Republic.

The total area of Spain, expressed in hectares, is 50,510,212 distributed as follows:

Cultivated area	hectares	18,353,546	or	38.3	per cent. of total
Forest area	»	25,281,100	»	50.0	»
Unproductive area	»	3,814,628	»	6.0	»
Area taken up for roads or for urban centres	»	2,060,538	»	4.1	»

Although the above grouping shows 88.3 of the total area to be under cultivation or forest land, the actual situation is unsatisfactory since the greater part

of the forest land is unproductive on account of its altitude, its drought conditions, and because owing to its geological structure it is unsuitable for farming. The same may be said of the cultivated area where owing to adherence to old-fashioned methods the results that ought to be obtained cannot be secured.

Although so backward, agriculture is the principal source of wealth in Spain. The proportion of the population actively engaged in agriculture is 70 per cent. and the value of the production per hectare, taking into account the supplementary values of stockbreeding and of the industries for transformation of agricultural products, is 184 pesetas. This means for each Spanish citizen, on the basis of a census population return of 22 million persons, the annual sum of 450 pesetas.

The strictly agricultural production represents an annual value of 9 milliards distributed as follows :

Cereals and leguminous crops	4,501,000,000 pesetas
Root and tuber crops	860,000,000 »
Vine products	792,000,000 »
Olive products.	647,000,000 »
Fruits	2,000,000,000 »
Other products	200,000,000 »

Wheat is the cereal most widely cultivated, and the annual production reaches an average of 38 million quintals, nearly covering the requirements of the country.

In the group of root and tuber crops, the first place is held by the production of potatoes.

Vine growing occupies 1,500,000 hectares, and more than 22 million hectolitres of wine are obtained besides table grapes of world renown.

The production from olive cultivation is the largest in the world, and the area cultivated is 1,800,000 hectares.

The fruit growing is on a large scale, and often gives immensely high values to the land so utilised, as returns are obtained up to 2,300 pesetas per hectare, although the average return per hectare under this cultivation does not exceed 444 pesetas.

The above statements will give an adequate idea of the agricultural position in Spain. Some examination will now be undertaken of the position of land holding.

In this respect, figures are available only for half of the national territory, the portion mainly required for the purposes of the agrarian reform, as will be seen from the sequel.

A statistical table is reproduced here based on the latest official figures of the Land Survey which are brought up to 31 December 1931. This table shows the total number of farm holdings constituting the 22,435,090 hectares of the cadastral survey, grouped according to area :

REGIONS	Under 1 ha.		From 1 to 5 ha.		From 5 to 10 ha.		From 10 to 50 ha.	
	Number of farms	Area	Number of farms	Area	Number of farms	Area	Number of farms	Area
Castile-Leon	2,422,324	768,247	258,057	419,637	14,600	84,064	8,511	165,021
Central	1,490,198	477,110	230,618	437,528	12,995	88,208	9,138	207,316
Coastal provinces . .	1,133,396	424,110	186,794	348,678	21,176	138,953	13,900	271,442
South-Eastern provinces	326,562	105,251	122,017	268,573	21,341	136,049	17,773	350,132
La Mancha	858,036	400,592	468,300	938,470	47,653	337,398	29,154	603,012
Extremadura	791,427	342,600	210,849	426,123	26,538	178,493	19,028	405,823
Provinces adjacent to Andalusia . . .	395,805	154,089	119,633	245,309	15,438	103,022	12,058	230,805
Andalusia	512,550	303,213	280,765	581,139	46,043	313,229	14,378	684,402

REGIONS	From 50 to 100 ha.		From 100 to 250 ha.		From 250 to 500 ha.		From 500 to 1,000 ha.	
	Number of farms	Area	Number of farms	Area	Number of farms	Area	Number of farms	Area
Castile-Leon	1,615	104,105	786	104,250	288	99,199	84	53,817
Central	1,733	117,248	992	144,494	320	103,929	92	63,586
Coastal provinces . .	2,321	153,790	1,221	176,749	460	149,184	97	68,889
South-Eastern provinces	2,755	172,281	1,217	181,190	450	135,530	152	98,086
La Mancha	4,048	273,191	2,893	397,318	1,506	481,276	675	458,549
Extremadura	5,156	335,486	3,620	528,335	1,779	571,423	587	398,148
Provinces adjacent to Andalusia . . .	2,242	133,689	1,441	210,305	733	245,575	303	198,365
Andalusia	5,819	401,016	4,135	597,316	2,406	775,923	1,093	727,919

REGIONS	From 1,000 to 2,500 ha.		From 2,500 to 5,000 ha.		Over 5,000 ha.	
	Number of farms	Area	Number of farms	Area	Number of farms	Area
Castile-Leon	49	71,369	14	48,322	3	13,678
Central	32	45,537	4	13,695	1	5,034
Coastal provinces	15	22,840	3	11,381	1	6,212
South-Eastern provinces	39	66,189	4	13,681	—	—
La Mancha	343	520,819	69	239,005	26	180,464
Extremadura	159	234,746	10	29,534	1	5,001
Provinces adjacent to Andalusia . . .	145	211,797	29	95,760	11	72,440
Andalusia	405	603,302	50	171,905	31	176,390

From the above table certain consequences may be deduced which emphasise the absolute necessity for bringing about a legal reform in land ownership.

In fact, in the total of the area under survey (22,435,090 ha.), there are 10,214,352 farm holdings, of which 10,016,994 (or 98 per cent.) consist of less than 10 hectares. Although this seems a very high percentage of all the farms, the area represents merely 36 per cent. of the area under review, and, included in this last percentage, 34 per cent. represents the farms of less than one hectare, that is to say, the dwarf holdings, the existence of which is so irrational and un economic that it may well be designated as "the shredding of ownership."

On the other hand, the large farms of more than 500 hectares number 4,527 and their total area is 4,916,590 hectares, or one fourth of the whole area included in the table. Moreover, 1,444 farms of over 1,000 hectares account for 2,849,101 hectares, that is to say the average area of *three Spanish provinces*, and an area equivalent to the eight million farms of one hectare in extent which are shown in the survey.

All these data point to the prevalence of both dwarf holdings and latifundia, and accordingly to the necessity of legal reform of territorial ownership, by which concentration or partial splitting of holdings, according to the circumstances, may be attained. The result should be the creation of a reasonable type of holding with respect to the characteristics and requirements of each agricultural region.

2. — NECESSITY FOR THE REFORM AND OBJECTS IN VIEW.

From the foregoing statement it will be clear that the situation of Spanish agriculture calls for reform. In fact taking into account the natural conditions in Spain for farming, the greater number of the products show per unit of area indices lower than should theoretically be the case. In addition, forestry and stockbreeding are far from remunerative, the means of transport are antiquated or backward, marketing and customs organisation is imperfect, in agricultural credit and in co-operation, whether for sale or for distribution, the first steps only have been taken, technique generally speaking is rudimentary and there is no co-ordinated plan for utilisation of the national lands, while the rural industries subsidiary to agriculture, or necessarily bound up with it, are far from attaining the importance that they should do in Spain, as a European country of more than 500,000 square kilometres in area. All this backwardness and inequality justifies the necessity for the agrarian reform, which should be carried into effect in almost every territory of the Republic.

The defective element in the normal working of agriculture in Spain is to be ascribed to the variability that characterises it, a result, as has been shown, of certain orographical and climatic features, which, together with the nature of the soil impart a distinctive aspect not only to each province but also to each commune, and give rise to a number of difficulties which cause interruption in systematic farming work.

The problem of the land in Spain is not however bound up merely with the climatic and other factors referred to above, but is affected as has been stated by the system of tenure. On the northern and southern plateaux, where subdivision of the land into small holdings is most fully carried out, and the farm worker accordingly has a greater share of the farmland, the recurrent evil of unemployment is not felt with that intensity with which it is felt in Andalusia and in Estremadura. These last are regions of large estates and of *latifundia* where forced periods of agricultural idleness are combined with adverse meteorological conditions in the years of bad harvests which form the special features of the extensive cultivation of the Spanish arid lands.

It is thus undeniable that the origin of the agricultural deficiency, which it is proposed to remedy as far as possible by the agrarian reform, lies in the natural conditions of soil and climate taken together with the land tenure system. It is with these two important causes that the Reform proposes to deal, and it is reasonable to suppose that a level of attainment will be reached such as is practicable in the present state of world agricultural progress.

The origin of the evil having been recognised, the Reform proposes to concentrate upon the *internal* and *external* factors of agricultural production. Among internal factors the factor of the *land* comes first. In place of regarding the land as accumulated capital, as it is usually regarded, the tendency under the reform is to transform the conception into that of an irreplaceable instrument of production. The land has a social function to fulfil, and must undergo modification in that sense. The law regards a redistribution of the soil as essential, because the present system of private ownership, with all the privileges accumulated over many years of favourable legislation during which other social theories prevailed, cannot satisfy requirements which the Reform endeavours to meet. The land cannot be accumulated in the hands of a few persons who from lack of stimulus, of working capital and technical skill cannot make it as productive as it should be; neither should it be split into parcels smaller than the limit imposed by the technique for each class of cultivation, so as to make its farming uneconomic; it is essential to break up land or to concentrate it, according to circumstances and the requirements imposed by the most suitable form of cultivation.

Another *internal* factor with which the Reform deals is *capital* in its different forms (fixed, circulating, live or dead stock). Land must not however be considered as real capital and but as an instrument of production. The service of capital in land at the present time absorbs the greater part of the profit derived from farming and for its purchase are employed large sums which are deducted almost entirely from the working capital and the fair remuneration of labour.

In regard to *labour*, its just share has up to the present been curtailed, as it consists in a fixed remuneration in the form of a weekly or daily wage, without, it is true, incurring the risks of the yearly farming balance-sheet, but without any share in the profits. Yet the labour factor is the most important, since on it the natural productivity of the land depends, as is not the case in forestry or in the more primitive forms of stock farming. To the labour factor

is owed that transformation in cultivable land which has been brought about by permanent improvements, beginning with the breaking up of the good land, going on to the planting of trees and culminating in the operations of regulation and levelling.

The Reform moreover tends to act upon the *external* factors of production, such as the public authorities, the community itself, the markets and associations. Of great importance also is the official intervention of the various organisations of the public authority or Government. Not only may the Government in its zeal for agriculture put in hand public works or develop experiment and demonstration services in addition to providing technical instruction in agriculture, but the direction given to taxation is also of great importance, since the share which the State assigns to itself, through the imposition of taxes, in the net return from agricultural production, or it may be in the general assessable wealth, has a decisive influence on the rural economy.

Population too with its phenomena of density, absenteeism, emigration, concentration and dispersion, etc., is also an *external* factor of considerable importance in agricultural production and for this reason the Reform proposals deal also with population.

Lastly there are the markets, internal and external, with their problems transport and tariffs as well as the agricultural associations which by their intervention determine the rural prosperity. The markets can, by perfecting their organisation and equipment regulate credit, sales and consumption of the products, and become yet another of the factors in agricultural production which fall within the field of activity of Reform.

To sum up, the objects of the Spanish agrarian reform are technical, social and economic and cover all aspects relevant to these, co-ordinating them with a view to bringing about a just and effective settlement.

A review will now be made of the most striking features of the Law of Agrarian Reform, the complete text of which has been published in the Year-book of Agricultural Legislation of this Institute.

3. — THE LAW OF THE AGRARIAN REFORM.

In the month of September 1932 two laws were promulgated, that of the Agrarian Reform on 15 September, and that by which the Institute of the Agrarian Reform, the organisation for carrying out the Reform, was established on 23 September 1932.

The following comments may be made on the text.

In the first chapter (*Base 1*) it is stated that the law . . . " begins to take effect from the day of its promulgation " and it is added . . . " none the less, the juridical conditions of a private character relating to rural ownership which may have been voluntarily constituted since 14 April 1931 (the date of the proclamation of the Republic) up to the time of the promulgation of the law will be held, for the purposes of the law, to be not constituted, in so far as they may be in any way opposed to the full effect of the law. "

It was necessary to give the law this retrospective character, owing to the fact that, as the general tendency which would be taken by the Reform became

clear immediately on the establishment of the Republic, new juridical situations were created by the private interests that were threatened by the future Reform, with the object of evading the provisions and of impeding the course of the projected measure.

Naturally, the case contemplated here is not that of a legitimate purchase made in good faith; the retrospective clause is directed merely against rights deliberately constituted with full knowledge of the menace involved in the new law, and with the intention of counteracting and evading the objects proposed by the Reform. The equitable intention of the law is clear from the fact of the limitation of the cases to which this retrospective measure applies, as follows:

(a) if, before 14 April, the nature of the estates had been such as to make it necessary to subject them to the expropriation contemplated in the Reform, that is to say, such estates as would have been expropriated on 14 April, had the law then been in force;

(b) if the characteristic features of the estates have been changed in virtue of juridical situations specially constituted in the period intervening between the establishment of the Republic and the promulgation of the Law of the Agrarian Reform, and lastly;

(c) if any modification of the characteristic features removes the estates from the sway of the law of the land.

In Chapter 2 (*Base 2*) the beneficent effects of the law for rural workers are outlined. Although "... the effects of the law will extend to the whole territory of the Republic" in the first instance it will be brought into force without delay in those communes where the enforced idleness and the number of persons not in employment render it most necessary, *i. e.*, in Andalusia, Estremadura, Ciudad Real, Toledo, Albacete and Salamanca. This chapter also contains provisions relating to credit which will be mentioned in their place.

Base 3 lays down that ... "the execution of the Law shall be entrusted to the Institute of Agrarian Reform, as a body the function of which is to effect a transformation in the Spanish rural organisation." The Institute will be a duly constituted public body with independent resources. It will be under the direction of a Council consisting of agricultural experts, legal experts, representatives of official agricultural credit, landowners, tenants and agricultural workers.

A few days after the publication of the Reform on 23 September, this Institute was established, and immediately entered on its activities. Subsequently certain reforms were introduced which the situation appeared to demand and were based on the decree of 5 November of the same year 1932.

The Institute of Agrarian Reform, in accordance with Base 4, made it its first business to define and give content to the work of introduction of the Reform, to establish the various stages of its realisation, and to indicate the concrete regional forms that must be adopted for its speedy and effective introduction.

The Institute of Agrarian Reform, in its capacity of a loyal auxiliary organisation of the Reform, endeavours to guide Spanish agricultural,

forestry and stockfarming production along the lines contemplated in the Law, to make provision for development and to carry development to an appropriate point.

In Base 5, the Law defines in detail the lands that must be expropriated in the interest of the introduction of the Reform. All lands will be liable to expropriation that belong to any individual or public body and fall under the following definitions: lands of the arid zone under crops and pasture rotation, from 300 to 600 hectares; olive plantations on the arid zone, associated or not with other crops, from 150 to 300 hectares; vineyards in the arid zone, from 100 to 150 hectares; arid lands regularly planted with trees or shrubs, from 100 to 200 hectares; pasture grounds partly under plough with or without tree planting, from 400 to 750 hectares; all the farmlands included in the large irrigable zones with State-aided irrigation works and an area of between 10 and 50 hectares. Those estates will also be liable to expropriation which are voluntarily submitted by their owners provided that their acquisition is regarded as of utility for the purposes of the agrarian reform; rural lands belonging to public corporations, foundations or institutions farmed by tenant farmers, in share tenancy or any other form of indirect cultivation; estates that have been acquired for purposes of speculation or with the sole object of collecting a rent without any intention of cultivation by the purchaser; seigniorial lands either uncultivated or badly cultivated; lands which it would have been possible to irrigate, in view of the presence of a pool or in consequence of the establishment by law of the obligation to irrigate, but which have not yet been irrigated; also lands included in the new irrigation schemes undertaken at the expense of the State; lands situated at least two kilometres from the borders of centres of population not exceeding 25,000 inhabitants, when the owner of the said lands possesses in the same commune other property on which the return for purposes of the land tax exceeds the sum of one thousand pesetas, while he does not cultivate the said lands directly; lands conveyed by contract on special terms binding both parties, and lands that shall have been assigned to the State, the region, province or commune in payment of a debt, as an inheritance or a legacy; lands farmed systematically on a tenancy basis either on a money rent or with payment in kind over a period of twelve years or more provided that they do not belong to minors or incapacitated persons and are not property constituting the non-estimated dowry of married women or lands held in usufruct; lands occupying an area greater than one sixth of the total area of the land of the commune in which they are enclosed. Lands such as these last, and in particular lands which might have been transformed into irrigated lands but which have not been so treated by their owners, will be expropriated by preference.

Previously to the publication of the Law of Agrarian Reform, the Government had decreed on 25 August 1932 the confiscation of all the rural estates and country dwellings belonging to persons who had taken part in the revolutionary movement of 10 August 1932. The lands were to be expropriated without any compensation and were to pass in their entirety to the State for assignment to the purposes of the Agrarian Reform. The law compels

landowners compromised in the revolutionary movement to continue to cultivate their lands up to the time at which the State takes charge, if it is a case of direct farming. If the farm was leased, the law provides for the rents being collected by the State. The law of confiscation threatens with imprisonment of varying duration owners who do any injury to the rural estates thus subject to confiscation, either by careless cultivation tending to reduce the normal production or by destruction of the permanent improvements of the confiscated farms. This law of confiscation of rural lands is applicable to the whole of the national territory. On the other hand, expropriations carried out in application of the Agrarian Reform, although extending to the whole of the territory of the Republic, have been in the first instance applied to landowners of the provinces of Andalusia, Estremadura, Ciudad Real, Toledo, Albacete and Salamanca, which are the regions where the need for the Reform is most strongly felt. For the remaining 36 provinces the Reform can only be applied on the proposal of the Government and by means of a special law voted by the two Chambers. None the less, in these 36 provinces, the Law of Agrarian Reform will be applied immediately on State properties and on rural seigniorial lands.

In accordance with Base 6 the following four classes of rural estates will be exempted from expropriation for purposes of the Reform :

1. communal lands belonging to the villages, stock routes, and large cattle grazing grounds utilised by the communes ;
2. lands given up to forest working ;
3. large pasture lands with scrub, untilled and waste land (*baldios y eriales*) when 75 per cent. of the area does not admit of cultivation ;
4. lands which on account of their excellent farming or improvements may be considered as models of good cultivation alike from the technical and the economic standpoint.

These cases of exception will not apply to seigniorial lands nor to forest workings, or large pasture estates (*dehesas*) and heathlands forming the fifth part, at least, of the area of the commune in which they are situated, nor to pasture estates (*dehesas*) leased and utilised jointly by a group of small stock-farmers.

Bases 7 and 8 deal with the question of compensation for lands expropriated. According to these, the Institute of Agrarian Reform, as the organ for the carrying of the Reform into effect, will proceed to the preparation of the inventory of the lands already indicated as subject to expropriation, and for this purpose a notice will be published in the official journals, inviting all owners of lands liable to expropriation to present, within thirty days, to the *Registro de la propiedad* (a duly authorised institution the object of which is to secure ownership (*dominio*) and the privileges derived from it) for the locality in which their lands are situated, a detailed report in regard to their lands, stating their position, area, boundaries, and other circumstances necessary for the ready identification of the estate that is to be expropriated.

A book will be kept at each of these offices in which will be entered the estates liable to expropriation, and each office will transmit monthly to the Institute of Agrarian Reform a copy of the entries.

Landowners omitting to submit within the thirty days period such declaration of their lands, or those owners who in submitting the declaration omit an estate or farm, will be subject to a fine equal to 20 per cent. of the value of the lands not declared or omitted from the declaration, such fine to be collected by the Institute of Agrarian Reform.

On the expiry of the period fixed, any person may denounce to the officers of the Registration offices the existence of expropriable lands purposely not declared by their owners. If the accuracy of this denunciation is proved, then the defaulting owner will be fined at the rate of the 20 per cent. already mentioned, half of which will go to the person denouncing.

The general inventory of lands subject to expropriation must be completed within one year.

The following procedure will be adopted for the valuation of lands subjected to expropriation and as to the form of compensation of the owners.

In the case of seigniorial lands or lands belonging to the grantees of Spain, compensation will be given corresponding to the value of improvements of actual utility which are not mortgaged. Individuals who by reason of the expropriation of seigniorial lands without compensation are left without the means of subsistence, will have the right to claim from the Institute of Agrarian Reform a maintenance pension which will be granted only provided they prove that they are entirely without any kind of property. In regard to the expropriation of lands belonging to the grantees of Spain, the Government, on the proposal of the Institute of Agrarian Reform, may grant such exceptions as are deemed suitable in recognition of eminent services rendered to the Nation.

The basis of the valuation of other estates is taken in reference to the assessment for the land tax made in the cadastral survey.

The rates for assessment of the capital value of these lands established by the Law are as follows:

5	per cent.	when the revenue is less than	15,000	pesetas.			
6	per cent.	when the revenue is between	15,000	and	30,000	pesetas	
7	»	»	»	»	30,000	»	43,000 »
8	»	»	»	»	43,000	»	56,000 »
9	»	»	»	»	56,000	»	69,000 »
10	»	»	»	»	69,000	»	82,000 »
11	»	»	»	»	82,000	»	95,000 »
12	»	»	»	»	95,000	»	108,000 »
13	»	»	»	»	108,000	»	121,000 »
14	»	»	»	»	121,000	»	134,000 »
15	»	»	»	»	134,000	»	147,000 »
16	»	»	»	»	147,000	»	160,000 »
17	»	»	»	»	160,000	»	173,000 »
18	»	»	»	»	173,000	»	186,000 »
19	»	»	»	»	186,000	»	199,000 »
20	»	»	»	»	200,000	and upwards	

Adequate compensation will be given for improvements which, under the provisions of the existing legislation, have not yet been entered on the cadastral survey. In addition the land owner will be reimbursed in respect of sums paid by him in virtue of the law making it obligatory for him to provide irrigation on lands requiring it.

The total of the expropriation will be paid, partly in cash and the remainder in bonds of the Agrarian Debt amortisable in fifty years, carrying a five per cent. interest of its nominal value.

The cash indemnity will be paid in accordance with the following scale :

Lands on which the return is not more than 15,000 pesetas 20 per cent.
Lands the return on which is more than :

15,000 but does not exceed	30,000 pesetas	15 per cent.
30,000 " "	43,000 " 	14 "
43,000 " "	56,000 " 	13 "
56,000 " "	69,000 " 	12 "
69,000 " "	82,000 " 	11 "
82,000 " "	95,000 " 	10 "
95,000 " "	108,000 " 	9 "
108,000 " "	121,000 " 	8 "
121,000 " "	134,000 " 	7 "
134,000 " "	147,000 " 	6 "
147,000 " "	160,000 " 	5 "
160,000 " "	173,000 " 	4 "
173,000 " "	186,000 " 	3 "
186,000 " "	199,000 " 	2 "
199,000 " "	200,000 " 	1 "

The holder of the bonds cannot dispose freely of more than 10 per cent. of their total value in each year beginning from the year in which the expropriation of the estate, compensated by means of these Agrarian Debt bonds, was effected. The remainder of the bonds cannot be transferred by means of transactions taking place between living persons, nor can distress be levied upon them.

If the landowners concerned are not prepared to agree to the valuation made of the lands, they have the right of recourse to the Institute of Agrarian Reform for the purpose of challenging the valuation. The Institute will decide in accordance with the scale of rates already indicated.

If the landed property coming under expropriation is mortgaged or otherwise burdened, any such charge is deducted from the valuation price and the amount due paid in cash to the third party. If the valuation price does not cover the charge, the difference is made up by the State.

So as to give immediate effect to the Reform, the Law allows the taking possession of certain estates that are subject to expropriation so soon as they

are placed upon the list for expropriation. In applying this measure, the nature of the crops is taken into account, so as to avoid any loss of the produce. Accordingly the State will take over the full working of the lands, will assign them to settlers who are landless, and will pay to the owner a rent of 4 per cent. of the value that has been fixed already, until such time as definitive realisation of the property has been effected.

On any such lands of which immediate possession has been taken by the State, all the expenses incurred by the owner will be paid, including the value of the crops to be gathered, the live and dead stock and any improvements in existence on the farm, the object being to avoid any interference with the proper farming of the land.

The preceding statement constitutes the most important part of the Law referring to the expropriated lands. Before passing on to an explanation of the position of the landworker and the advantages that are ensured to him by the Reform, a brief account may be given of the functions of the Provincial Agrarian Councils (*Juntas*), which consist of a President, appointed directly by the Institute of Agrarian Reform, and representatives of the landworkers and landowners in equal proportions, not exceeding four of each group.

The Provincial Inspector of Live Stock Hygiene and the provincial chiefs of the agricultural and forestry services also are members of these Councils, in the capacity of assessors, with the right to speak but not to vote.

The Provincial Councils will take possession of the lands which are subject to expropriation and assigned for apportionment, and will prepare the required certificate after duly notifying the owner. This certificate will indicate the position, the boundaries, the area of the estate and its most important characteristics from the standpoint of agriculture and forestry, such as the crops, the fences, etc. and the condition of all these, as also the position of the farm work and of the growing crops at the time of the taking of possession.

The certificate will be drawn up in triplicate. One copy will be handed to the owner, a second will be kept by the Provincial Council which will forward the third copy to the Institute of Agrarian Reform after having caused it to be entered on the Estate Register. No fee is charged for making this entry.

As soon as the lands that are to be expropriated have been indicated under the Law, and immediately on the constitution of the provincial *Juntas*, which, as has been shown, are the bodies with the function of giving effect under the jurisdiction of the Institute of Agrarian Reform to the Reform, distribution of the lands and assignment to the settlers will immediately be undertaken on the following lines: the Provincial *Juntas* will at once proceed to the establishment of the census of the landworkers who are to be settled within each communal area, such census list to indicate the name and first name, age, status and family circumstances of the persons concerned. This census will be divided into four groups as follows:

1. Farm workers and stockmen, strictly so called, that is farm hands, who are themselves landless;
2. Societies of farm workers, legally constituted, provided such societies have been already two years in existence at least ;

3. Holders of small farms who pay less than 50 pesetas annually as land tax, on lands directly cultivated, or who pay in rent less than 25 pesetas for lands rented;

4. Rent-paying or share tenants who farm less than six hectares in the arid zones or one hectare of irrigated land

As soon as the Census is prepared and the time for the establishment of the settlers has arrived, the determination of those to be settled on the land is taken on hand in accordance with the order previously arranged.

In each group preference is given to cultivators with the responsibility of a family and in this class priority will be assigned to families including the largest number of persons capable of working the land.

Notwithstanding this last provision, if it is a case of lands in the arid zones, preference will be given to workers' organisations which have made application for lands with a view to joint farming.

It is characteristic of the Reform, in fact, to give special recognition to landworkers' associations and organisations of the right to own and to farm the new holdings created by the Reform. This characteristic is the outcome of one of the features of the former system of landholding in Spain, namely, the *latifundia*, originating in the large areas of arid lands where individual farming was condemned to failure and where, with the aid of co-operation and State credit, associations of landworkers may be able to restore fertility to lands at present unproductive but likely in future to be a factor of importance in the national economy.

The provisions of the Law also prescribe that the Reform shall not be confined to a mere partition of the lands among some thousands of settlers, for individual or collective cultivation, but that more important objects shall be envisaged and that the purpose in view shall be to improve and transform cultivation in such a way as to increase the national agricultural wealth, without interfering with the interests of the actual holder of the land.

The expropriated lands are, as stated in Base 12, set aside for the following operations: parcelling and distribution among cultivators and associations of land workers, formation of new urban nuclei, and workers' gardens, consisting of a small house with kitchen garden attached. It is necessary to ensure that the lands thus assigned are really allocated to the purposes indicated, and that any clearing of lands unsuitable for a particular crop is prevented, while the cultivation of the products indicated by the climate and the type of soil is rendered compulsory. Endeavours should also be made that the important operations for which the individual economic resources are insufficient should be effected by joint cultivation; such operations include transformation of farming systems on a large scale and works of land reclamation.

Another part of the expropriated lands are set aside for reafforestation and the construction of reservoirs and other hydraulic works. It is considered that certain estates which would be very difficult to parcel out and could not be farmed to advantage, either by individuals or collectively, might constitute valuable forest centres.

Other expropriated lands will be set aside for formation of large estates of industrialised type, directly under State management, and intended for purposes of instruction, experiment or demonstration in agriculture or in stock-breeding, or for any other purpose of evident public utility. By this means the farm worker will enjoy the advantage of gaining an acquaintance with practical experiments and of obtaining farm machines which economise labour and effort and lower the cost of production. It is not only a question of good farming but of farming on the most economical lines possible, seeing that the factor of cost of production is one of the most important in agricultural economy. Again, apart from these large farms of industrial type, there would be no possibility either of diffusing practical instruction, or of carrying out trials and enquiries the results of which could be applied by the cultivators themselves when their soundness, utility and economy had been demonstrated.

Other expropriated lands will be utilised, by special concession, as large estates on which there must first of all be effected crop transformations or land improvements of such importance as to require the investment of capital such as is only possessed by powerful organisations having adequate technical and financial resources. A return will be obtained in this way from lands at the present time still unproductive, savings will find an adequate investment and work will be given to the technical staff directing the improvements and to a great number of workers who, later on, will be established on the improved lands.

Farmers' Clubs will be formed as centres of encouragement and stimulus for the cultivating class. In this way the farmers will become accustomed to the idea of establishing trial centres for collective farming.

Other lands will be granted to the former tenants in emphyteusis and with engagement to sell only with consent of the tenant, provided that such lands have been already rented for a certain number of years and are of a certain area.

The object of these measures is to put an end to latifundium and absenteeism and to enable all who work on the land to share directly in the wealth which they combine in creating.

In reference to the account already given of the situation of the rural population prior to the Law of Agrarian Reform, it may be stated that the tendency of the Law is to improve to a perceptible degree the economic and social condition of the mass of this population, so that the cultivator whose level of education, of welfare and hygiene has been thus raised may become the decisive factor in the accession of wealth in a country so eminently agricultural as Spain.

In view of the importance of instruction, credit and co-operation for the full development of agriculture, these factors could not be ignored in the Law of Agrarian Reform, especially as it was essential to create a number of small holders and in particular collective groups of cultivators who, without the economic and technical assistance of the State, would encounter obstacles rendering impossible all remunerative farming.

Base 23 of the Law of the Agrarian Reform provides that the Institute of Agrarian Reform shall give special attention to the establishment and en-

couragement of technical agricultural instruction. For this purpose it shall establish vocational schools, laboratories, experiment farms. It shall organise demonstration courses and tours and all other means calculated to diffuse the necessary information among cultivators so as to ensure better farming of the soil and the development of co-operation. It shall take account of the different regions and their access to consuming markets.

A very decided impulse is given in the direction of agricultural instruction by the Law of Agrarian Reform. It is recognised as essential to facilitate provision of economic resources in the form of credit, as well as of farm equipment and other requisites, through the medium of co-operation, and that it is still more essential to make provision for education and instruction so that a more enlightened use may be made of both credit and co-operation.

The training of practical and capable farmers, the modernisation of the cultural processes which must inevitably replace the earlier methods, formation in the farm worker of the habit of observation and reasoning, the knowledge of the advantages offered by grouping in syndicates or in co-operative societies, all these will be the practical results of the application of the provisions of the Law relating to instruction.

Bases 11 and 16 establishing collective farming of lands give scope within the Reform for a powerful movement of agricultural co-operation, in view of the fact that the farming of wide areas of land by a community of settlers will necessarily involve the advantages that would be offered by co-operation. The direct purchase of machines and equipment, fertilisers, seeds, etc., will be a condition imposed, and the settlers will avail themselves of their grouping in co-operative societies to obtain all possible advantages in the sale of their products, insurance of their crops, etc. The Law lays down clearly in Base 17 the obligatory character of the co-operation: "... The Institute of Agrarian Reform will promote the formation of co-operative societies among such communities of settlers brought into existence by the Law, the purposes of such co-operation being the following: purchase of machinery and implements, fertilisers, seeds, fungicides and insecticides; foodstuffs and stockfeeds; preservation and sale of products; obtaining of loans on the joint and several liability of the members of the associations, and in general all the operations by which animal or plant production can be improved in quantity and quality."

As regards the working of the co-operative societies, the Law of Agrarian Reform enacts that it shall be regulated by the legal provisions in force in respect of co-operation, which have been previously published in this Review (1).

The subject of agricultural credit also receives attention in the Law of Agrarian Reform and it will be noted that not only is the Institute endowed with an annual sum of 50 million pesetas, but that this central body is empowered to receive State advances, to effect financial operations, to issue mortgage bonds secured by the land that constitute its patrimony (*Base 3*); the Institute

(1) Regulation of Co-operation as an Economic and Social Institution in Spain. *Monthly Bulletin of Agricultural Economics and Sociology*, February 1932.

of Agrarian Reform " will also promote the formation of credit institutions, and will make use of those already in existence, in order to secure to the settlers the capital necessary for farming costs " (*Base 4*). All matters relating to agricultural credit, however, remain concentrated, according to the Law (*Base 25*) in the National Bank of Agricultural Credit which will be the financial organ and the treasury of the Institute of Agrarian Reform.

For the complete working of agricultural credit use will be made both of the centres recently formed and of those previously in existence, which were however closely linked with the National Bank and subordinate to it, inasmuch as it is from the National Bank that the credit benefits radiate as far as the most humble rural banks of the most distant agricultural centres. The new credit structure rests on the basis of the local agricultural credit institutions, *viz.*, deposit and loan banks, the *pósitos*, co-operative agricultural credit societies, credit sections of the syndicates and of co-operative societies the main function of which is the granting of individual loans on personal security at short term. On a superior level and closely linked with the local centres are the Regional Institutes of agricultural and provincial credit; regional savings banks and federations of *pósitos* and of syndicates and co-operative societies, the main function of which is to make loans to local institutions, loan on pledge and mortgage security to individuals both long term and intermediate, and loans to syndicates and co-operative societies.

At the top of the ladder is the National Bank of Agricultural Credit as an Institute of national agricultural credit with the function of making loans to regional institutions, of financing important farm improvement works, of establishing co-operative societies, of intervening in agricultural insurances, discounting of bills, issue of warrants on pledge of agricultural products, issue of bonds and debentures, etc.

It is the new organisation of credit which is regarded as the most appropriate for use in connection with the Reform, and it should be noted that although a close relation is established between the organisations of varying category, this relation does not imply dependence of one on another. On the contrary, the most complete independence and the fullest responsibility will be preserved in each institution especially in those local organisations which form the basis of the new structure.

From the wide scope of the problems involved and from the far reaching changes introduced into the land tenure system the accomplishment of the Agrarian Reform is equivalent to a legal revolution in Spanish agriculture.

It is perhaps on account of its complexity that the Spanish agrarian reform presents greater difficulty than the reforms that have been carried out in certain other countries of Europe in the post-war period. The majority of the States that have introduced an agrarian reform are countries with a climate which is for the most part uniform and possessing agricultural regions with well defined types of cultivation. With these nations, the problem presenting itself is that of

obtaining additional lands and a satisfactory grouping of parcels which will facilitate an increase in the area of holdings and in the number of family peasant holdings together with that of establishing as independent farmers the farm workers who formerly constituted a rural proletariat.

In Spain, however, the case was not the same. Apart from the landless workers, there are problems of a technical and economic order to be solved, such as that of the latifundium of certain zones and that of excessive parcellings in others, absolutely essential works of a hydraulic character, reafforestation as well as clearing operations on the great pasture estates (*dehesas*) in order to secure the extension of stockbreeding, and many other questions.

The Agrarian Reform is a great problem which has been confronted by the Republic in the full recognition that its solution implies the raising of the humble proletarian class of the country districts and the fulfilment of their aspirations towards betterment, as well as the triumph of the national economy which cannot support international competition so long as the agriculture which forms its basis has not undergone a far-reaching technical transformation.

E. MARTINEZ DE BUJANDA.

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

State Assistance to Australian Wheat Growers.

Among the many remarkable features of the world crisis through which we are passing is the urgent need which has arisen in a number of countries for the provision of subsidies or other forms of assistance for the classes engaged in producing the prime necessities of existence whether for their own countrymen or for export to meet the requirements of other populations. The following is an attempt to outline the facts as regards the wheatgrowers of Australia. It remains to be seen whether there is any alternative method of assisting producers not involving, as these expedients must, the increase of the burden of taxation upon the consuming populations.

The wheat growing industry of Australia, largely under the stimulus of a campaign launched early in 1930 by the Governments of the wheat-growing States, reacted to the fall in world prices by an extension of cultivation at lower costs per unit, and it was confidently hoped at the time that in this way production costs then usually estimated at about 4s. 6d. per bushel could be so reduced as to make existing prices remunerative for the Australian grower and enable him to consolidate his position on the world market. The area sown in wheat was accordingly increased throughout Australia from 12,068,000 acres which was the average for the years 1923 to 1929 up to 18,285,400 acres for the season 1930-31.

The result was a corresponding increase in production from 138,000,000 bushels to 212,000,000 bushels. The growing period of this crop however coincided with a further fall in prices (the fall being from 39s. 5d. per quarter of 480 lbs. in June 1930 to 25s. 6d. at the end of December) so that by harvest time it was abundantly clear that even the growers who by good fortune or good management had obtained heavy yields would secure less than the hoped for returns, while those whose crops were poor, whether owing to weather conditions or because in over-confidence they had extended cultivation to lands not suited for wheat growing, must inevitably experience losses ranging from severe to disastrous and even crushing.

The situation was regarded on all hands as serious, and in February 1931 the proposal was made by the Federal Government for raising a loan of £6,000,000 for the purpose of (a) paying a bounty of 6d. (later fixed at 4½d. per bushel), on wheat exported of the 1930-31 crop, and (b) advancing a total of £2,500,000 to the State Governments for the benefit of necessitous growers. Owing to considerable want of agreement the bounty proposals were abandoned in regard to the 1930-31 crop, although a sum of £3,000,000 was set aside for the purpose by the Commonwealth Bank Board to be used under certain conditions of overseas parity of wheat.

As regards assistance to necessitous growers, the £2,000,000 was made available, in pursuance of a policy initiated in January 1930 under the Government Guarantee Act, in the form of loans given in the different States through Farmers' Relief Boards and similar bodies.

During 1931, oversea prices continued on the whole to fall till in September the disastrous price of 19s. a quarter, or 2s. 4½d. a bushel was touched.

In October 1931, accordingly, a Conference took place between the Ministers of Agriculture of the wheat-growing States of the Commonwealth and the growers' organisations, and it was decided that the £3,000,000 should be used for paying a premium of 6d. per bushel on all wheat of the 1931-32 season exported or used for local consumption. However although a bill to this effect was introduced and passed the House of Representatives, there was disagreement in the Senate as to the machinery for distribution of this premium or bounty. The measure was finally dropped, mainly because of a complication arising from an unexpected advance in the oversea price of wheat.

The original condition in fact under which the Commonwealth Bank Board had undertaken to render available the £3,000,000 was that the bounty would be used to raise the f. o. b. price to 3s. a bushel. During the progress of the measure and as a consequence of the departure of Great Britain from the gold standard, the oversea price of wheat advanced from 2s. 6d. to 3s., thereby nullifying the condition. After the abandonment of the bill, however, further negotiations took place between the Bank Board and the growers, and the Board finally agreed to a bounty of 4½d. per bushel on all Australian wheat of the 1931-32 season sold or delivered for sale prior to 31 October 1932, irrespective of the selling price (1).

(1) For the season 1931-32 there was a reduction as compared with the previous season alike in area sown and in production. See Table III.

The claims, which had to be presented by grower and buyer, or receiver, on prescribed forms, were dealt with by the State Departments of Markets and the Federal Department of Commerce. Later for reasons of departmental convenience submission of claims by 15 August was requested, so that the following returns published early in August by the Federal Department of Commerce of claims received and dealt with may be taken as practically a complete statement for the year.

TABLE I. — *Payment of Federal Wheat Bounty.*

(Claims received and dealt with by the Federal Department of Commerce up to 4 August 1932)

STATES	Number of Claims received	Number of Claims passed for payment	Amount paid £
New South Wales	30,848	35,790	929,874
Victoria	35,017	32,340	794,512
South Australia	43,555	42,135	845,600
Western Australia	22,244	21,476	699,011
Queensland	3,060	3,060	64,308
Tasmania	131	338	1,804
	141,855	136,109	3,335,255

The total amount given in a later return published in November indicates an increase only to £3,342,325 and in the same return the number of individual growers submitting claims is given as 70,942. It is also stated that claims not exceeding £75, or up to 4000 bushels, numbered 57,019, and amounted to £1,494,831, or rather less than half the total amount paid.

By this time the question occupying the minds of the growers was that of securing remunerative returns on the 1932-33 crop shortly to be harvested. The overseas price, which had shown so encouraging a rise in the months following the abandonment of the gold standard, had since May 1932 tended to fall again and during October touched 26s. per quarter or 3s. 3d. a bushel, the price on the farm being of course lower. Costs of production, although varying in different areas, are undoubtedly higher in Australia than in the other great wheat producing countries owing to the high land values and high tariffs on farm equipment, and it is the general opinion among growers that it has proved impracticable to reduce costs below, at least, 3s. 6d. a bushel. In these circumstances it is perhaps hardly surprising that the decision taken early in November 1932 by the Federal Government against granting any direct bounty on the coming crop was received by the growers in the wheat-growing States with a storm of protest. The actual proposals of the Government were for a sum of £1,000,000 to be expended in the form of a subsidy of £1 per ton on all superphosphate purchased and held between the date of the passing of the

Bill and 30 June 1933. At the same time the sum voted for the relief of farmers suffering the greatest hardships was reduced to £1,250,000 only. These proposals were considered by the growers as useless or at least quite inadequate; meetings of protest were held and urgent telegrams despatched to Parliament. A "March of growers" on Canberra was even suggested as a method of impressing the Federal Government with the strength of the farmers' demand for direct assistance. The subsidy on superphosphate fertiliser (which had a parallel in the special credits for purchases of fertilisers arranged in 1931 for dairy farmers by the New Zealand Government) was the subject of particular criticism, it being contended that in wheat growing many other items of expenditure in connection with cropping are of equal importance with that on fertilisers. When it was learnt that the subsidy was to be paid to the fertiliser company and not to the farmer purchaser, the plan was further, although groundlessly, regarded as merely a means of helping vested interests. In Western Australia the refusal of the Federal Government to consider "straight-out" bounties, *i.e.*, bounties on the product made direct to the grower, was met by an extensive hold up of wheat deliveries at country stations, organised by the Wheatgrowers' Union.

At the same time there can be little doubt that the Federal Government had good grounds for the attitude adopted. To quote the words of the Prime Minister of the Commonwealth, when outlining the decision: "The Government is of opinion that the bounty on production of last year cannot be justified. The position in the payment of the bounty is that the higher the yield and the better the conditions under which the grower is working the more he benefits, while the farmer who is working under a disadvantage reaps the smallest benefit from the bounty." It is of interest that this is exactly the objection that was raised in the Senate in discussion of the 1931 measure, and an amendment was at that time proposed to the effect that the bounty should be paid on the basis of acres sown rather than on that of bushel sold, the intention being to benefit all growers alike. It will be seen that this was in fact the basis subsequently adopted although not precisely as a Federal measure.

Under pressure of political opposition joined with that of the growers the original proposal was modified. The Farmers' Relief Bill was amended, and as eventually passed made available a sum of £2,000,000 out of revenue for distribution among wheatgrowers, together with a sum of £250,000 for the assistance of primary products other than wheat. This latter assistance takes the form of a rebate of 15s. per ton for each complete ton of artificial manure used for top-dressing pastures, etc., during the twelve months ending 30 November 1933. It will be seen that this grant takes the place of the superphosphate subsidy declared by the wheatgrowers to be practically useless to them, transferring the assistance to other producers. On the other hand the distribution of the two millions to the wheat growers is left to the discretion of the State Governments, with the sole proviso that it may not be used as a bounty, *i.e.*, not as a payment on the quantity produced made to the grower.

The amounts distributed to the individual States were as follows: to New South Wales, £570,902; to Victoria, £442,421; to South Australia, £507,138; to Western Australia, £436,145; to Tasmania, £2,342. In addition in New

South Wales the Commonwealth grant is supplemented by a grant made from the funds of the Flour Acquisition Act of 1931, to the amount of £300,000.

The distribution of the funds is being effected in the different States as follows:

In New South Wales, out of the total of about £871,000 available, £745,000 is to be distributed upon the basis of area sown for grain, (*i.e.*, excluding areas under wheat grown for hay), the allowance being at the rate of 4s. an acre for areas of less than 250 acres, reducing by steps to 3s. an acre for areas exceeding 550 acres. The balance is applied in the form of a reduction in rail freight on wheat marketed or delivered for market, the rebate amounting to a halfpenny a bushel.

In Victoria it is intended to distribute the whole amount of £442,421 on the basis of area sown for grain. The payment per acre will be made on a flat rate so soon as all claims are received, and it is considered that the approximate rate will be 2s. 6d. an acre. A proposal for supplementing the Federal grant by the proceeds of a tax on flour was defeated in the State Legislative Assembly.

In South Australia the State Bank made an immediate preliminary payment of 1s. 6d. per acre of wheat sown to all approved applicants, the intention being to make further payments when all claims had been received and the total acreage known. On the other hand, £40,000 is definitely set aside for special grants to farmers whose 1932-33 crop yield was less than 3 bushels an acre, or was unmarketable.

In Western Australia it was decided to make an interim payment of 1s. 6d. per acre for farmers in immediate need of money, the balance to be paid when the total acreage for which claims are made is ascertained. As in Victoria, a proposal by the Ministry to supplement the Federal grant by funds raised by a State tax on flour was defeated.

The principle of a grant in relief per acre sown has thus been adopted in the wheat growing States. The freight allowance arranged in New South Wales, however, is equivalent to a grant on a basis of production of marketable wheat, *i. e.*, in some sense a bounty; but it will be noted that this allowance is being met out of the supplementary fund assigned by the State Government. According to an estimate made in January 1933, the acreage allowance in New South Wales will amount to £745,000 and the freight allowance will cost £125,000.

Some clearer understanding of a situation which is undoubtedly fraught with perplexity may be gained from a study of the following tables showing the course of prices of Australian wheat over the period 1930-32, and the figures for the area under wheat and quantities of wheat produced over the same period as compared with an average of preceding years. The reduction in area sown for 1931-32 is perhaps significant as following on the abandonment of the bounty proposals in February 1931, while the granting of a bounty at a later stage on this crop seems to have encouraged growers to anticipate a continuance of the same policy and hence to increase their sowings for 1932-33. It may perhaps be added that the combination of wheat and sheep farming is being adopted in some districts and is regarded as offering possibilities of more remuner-

ative returns, at least for small growers, than can be obtained from wheatgrowing alone.

TABLE II. — *Monthly Average Prices in Liverpool or London of Australian Wheat (1930)*

(in shillings and pence per quarter of 180 lbs. or 8 bushels)

	1930	1931	1932	1933
January	46/9	22/11	27/3	24/7 (new crop)
February	41/7	21/10	27/11	23/10
March	39/4	21/4	27/11	—
April	40/7	21/10	27/2	—
May	40/8	23/8	27/1	—
June	39/5	22/7	25/3	—
July	36/5	21/5	24/5	—
August	36/8	19/6	27/7	—
September	31/7	19/2	28/9	—
October	29/2	25/8	26/11	—
November	27/8	29/8	26/0	—
December	26/7	28/6	24/3	—

TABLE III. — *Area under Wheat and Crop Production in Australia.*

Average	Area acres	Production bushels	Yield per acre in bushels
1928-29	12,068,000	138,000,000	
1930-31	18,164,920 (revised figs.)	213,594,391 (revised figs.)	11.76
1931-32	14,724,830 " "	189,652,654 " "	12.88
1932-33	15,585,000 (est.)	200,000,000 (est.)	

C. H.

INSURANCE

Forms of Agricultural Insurance in Tunisia.

Live stock insurance does not exist in Tunisia. Hail insurance and fire insurance are effected chiefly by the agricultural co-operative insurance associations working at the present time in accordance with the Beylical Decree of 26 March 1931 (1).

(1) The complete text of this Decree appears in the Bulletin No. 145 of the second quarter of 1931 published by the Department of Agriculture, Trade and Colonisation.

The local associations are formed to the number of one to each civil administrative area. They are affiliated to a regional association the headquarters of which is in Tunis and this in turn is re-insured at the Central Reinsurance Association of Agricultural Co-operative Societies of North Africa at Algiers.

The following are the rules governing the formation, organisation and working of the societies in question.

Agricultural co-operative insurance societies or associations under unpaid management and administration, formed without any view to profit and not in fact making any profits, may be freely established without the authorisation of the Government being required, and are not subject to the formalities prescribed for the constitution of insurance societies. Such bodies are public bodies and can sue and be sued.

Under the designation of agricultural co-operative insurance associations are included the societies the object of which is to effect insurance against agricultural risks of all kinds, and in particular risks of hail, fire, live stock mortality, accidents, frost and other weather risks. The law provides that a distinct society must be formed for every class of risk.

The terms of constitution of the local associations state the purpose, the duration, the headquarters and the title of the society and further define the area of its operations, the nature of the risks for which insurance is effected, the methods of constitution, administration, control, dissolution, and liquidation of the society; the system followed in establishing the rates of insurance, the collection of contributions and entrance fees, settling and payment of claims, and general conditions of insurance which must be the same for all the local associations affiliated to the same regional association. The dates of opening and closing the financial year are fixed by the same means. A claim is taken as belonging to the financial year in which it was originally made, not to that in which it was settled. The terms of constitution also fix the method of establishing receipts and expenditure as well as the method of constitution and administration of the foundation capital and of administration of the guarantee and reserve funds.

Membership of the local societies within the limits of the local administrative area, and on condition of submission to the formalities prescribed by the rules, is open to (a) farmers or rural landowners, (b) agricultural co-operative societies regulated by Decree of 4 July 1907, co-operative agricultural credit associations constituted in accordance with the Decree of 25 May 1905, co-operative agricultural insurance associations under the provisions of the present Decree, water supply associations coming under the Decree of 20 May 1920, which mainly related to agricultural production or the transformation and sale of agricultural products, (c) rural artisans not employing more than two workmen regularly, such as: farriers, blacksmiths, wheelwrights, repairers of machines, tools, implements, or of farm buildings, barrel and cask makers, etc.

The administration or management of the agricultural co-operative insurance associations must be in the hands of persons of French or Tunisian citizenship, and no fees or other forms of remuneration are payable in respect

of such management or administration. A paid secretary-treasurer may however be appointed apart from the Council of Administration.

The local co-operative agricultural insurance associations can only be constituted and carry on operations on the condition that they have a membership of seven persons at least, and that at least two of them have formed a regional association for reinsurance of the risks provided for under their rules.

The social capital of the local associations cannot be formed by subscription of shares. It is built up from the entrance fees of members, the contributions of insured persons, grants or subsidies from the State and from agricultural associations, in particular agricultural co-operative credit associations, gifts and bequests made by private persons and the abovementioned associations, interest on funds invested, rebates received or shares taken in the risks by the reinsuring associations.

The insurance contributions are fixed and do not involve any liability on the insured person. Receipts from members are devoted to payment of costs of management, reinsurance premiums, compensation paid on claims and other expenditure. The annual excess of receipts over payments is paid into a reserve fund. When the reserves provided for in the statutes are reached, rebates may be made to members in the form of reduction of premiums.

Every local association is obliged to undertake a share in the risks insured. This share is at least one twentieth of the share undertaken by the regional reinsurance association, but it may be increased in proportion as the reserves increase. The surplus of the risks must be compulsorily reinsured with the regional association. Moreover in regard to accidents occurring during work, the local associations are expected to reinsure in full cases of death or permanent disability. No local association may withdraw from the reinsurance association to which it belongs before the expiry of the engagement prescribed in the reinsurance contract. It must repay to the reinsurance association any advances received as well as the share of the risks which fell on it, but which it will have paid or might have had to pay on its release from the engagement entered upon.

In the event of dissolution of a local society, the assets after settlement of accounts will be paid over to an agricultural co-operative insurance association or to an undertaking of general agricultural interest designated by the General Assembly subject to the approval of the Administration. In no case can the assets be divided among the members.

The Law of 26 March 1931 contains provisions relating to the declarations that must be made to the competent authorities as regards the rules, the persons administering or managing the affairs of the societies, as well as the receipts and expenditure and operations effected by them.

The administrative area of the reinsurance associations is fixed by their rules, and they are regulated by the same provisions as those applying to the local associations in regard to the rules, the declarations which have to be presented to the competent authorities the persons administering or managing the affairs. It should be noted that these associations may maintain a

paid staff on condition that the members of the staff have no vote on the Council of Administration.

Any society constituted in accordance with the provisions of the law of 26 March 1931, and observing the conditions and formalities prescribed by the rules must be accepted by the reinsurance associations for affiliation. The rules of the reinsurance associations fix the period for which the local associations are affiliated, which may not be less than five years, the conditions under which the reinsurance associations take a share in the losses sustained by the local affiliated associations, and the total of the reserve fund that must exist before rebates in the form of reduction of premiums can be allocated out of excess receipts to affiliated associations.

The purpose of the regional associations is to guarantee the payment of the share of risk falling on the local associations affiliated to them, in the event of the resources of the local associations proving insufficient, and also to effect reinsurance for each local association of a proportional share of their risks and of their excess receipts, and to reinsure a part of these with a Central Co-operative Association, either Tunisian, Algerian or French. The regional associations have the right of verifying at any time the book-keeping of the local associations affiliated to them and of pronouncing their exclusion in the event of their refusing to allow inspection or for serious irregularity in working, with the proviso that engagements in course at the time of exclusion are to be carried out. In the event of dissolution of a regional association, the assets, after settlement of the accounts, must be distributed among the local associations in the proportion of the premiums received during the five last years.

The Central Co-operative Reinsurance Association must guarantee the payment of the share of the risks falling on the regional associations, in the event of the resources of these latter proving insufficient. If the Central Association is Tunisian, it may retain a 50 per cent. share in the risks assured by the regional associations, reducing or increasing this share however according to the extent of its reserves. For the surplus risks, the Central Association must effect obligatory reinsurance with a Central association in Algeria or in France or with a joint stock company. In the event of dissolution of the Central Association its assets must be distributed, after settlement of accounts, among the regional associations in the proportion of the premiums received during the five last years.

The agricultural co-operative societies may receive Government grants under the conditions fixed by the Decrees of 1 February 1922 and 4 February 1925, and within the limits of a maximum of 100,000 francs per year coming from the fund for co-operation. Every application for a grant must state precisely the position of the regional and local associations at the time of the application and must be supported by all necessary justifying reasons.

In the event of dissolution of a local association subsidised by the State, the share in the net assets of the society coming from the State grants is paid over to the reinsurance association to which the society was affiliated, or in default of this to an agricultural insurance co-operative association to be named by the society itself subject to the approval of the administration.

The surplus is paid over, as already stated, to an agricultural insurance co-operative association or an undertaking of general agricultural interest designated by the general meeting subject to the approval of the administration. In no case may the surplus be divided among the members of the society.

In the event of the dissolution of a reinsurance association of the first degree, the share of the net assets of the society coming from State grants is paid over to an institution of agricultural co-operation designated by the general meeting of the said association subject to the approval of the administration. This approval will however be provisionally accorded for a period of two years reckoned from the dissolution of the reinsurance association of the first degree, and if a new reinsurance association is formed within the same area during this period the administration is empowered to order the partial or total repayment without interest to the new reinsurance association from the reserve fund coming from the State grants.

The destination of the net assets of reinsurance societies of the second degree, coming from State grants, is in the case of dissolution regulated by decision of the Director General of Agriculture, Trade and Colonisation and by that of the Director General of Finances. The surplus of the net assets of the reinsurance societies of the first degree is distributed, after settlement of accounts, among the local associations in proportion to the premiums received during the last five years, and the surplus assets of the reinsurance associations of the second degree is distributed under the same conditions among the regional associations belonging to them.

The Beylical Decree of 26 March 1931 takes note of the Decrees of the President of the French Republic of 2 August 1923 and 26 January 1930 relating to the constitution and working of the agricultural co-operative insurance societies applying for State grants, and in addition contains provisions relating to the deposits of the unappropriated funds of these societies and the investment of the reserves. In accordance with the same Decree, the associations for agricultural co-operative insurances and reinsurances are exempt from stamp duty and registration fees.

On the request of the Department of Finances of the Regency, the Tunisian Meteorological Service has established for a period of 10 years (1921-30) a return of the hailstorms that have occurred within the Regency. The tables containing the data in question are drawn up by administrative area and by the month.

This information was required in view of its bearing on hail insurance.

The Bulletin of the Department of Agriculture, Trade and Colonisation which has published these figures (1) adds the remark that there is only one means of protection against hail and that is insurance.

Actually use has been made of several methods of procedure which have proved practically ineffective against hail: rockets, cannon, electric "Niagaras". As the Bulletin states, hail is formed in the course of a storm. Now storms, in Tunisia, are usually linked with certain atmospheric conditions. For hail

(1) Tunis No. 149. Second quarter of 1932, p. 235 et seqq.

Hail

YEARS	NUMBER OF POLICES	VALUES ASSURED	DISTRIBUTION OF CONTRIBUTIONS PAID IN			GRANTS		RECEIPTS AND REBATES RECEIVED	
			Local associations	Regional association	Reinsuring bodies	Local associa- tions	Regional associa- tion	Local associations	Regional association
1921	518	47,828,164	15,325.87	61,363.21	370,287.32	600 —	10,400 —	—	1,447.48
1922	478	29,016,341	13,121.29	52,485.65	211,655.75	2,600 —	12,100 —	—	42,522.27
1923	668	56,933,140	59,631.02	238,524.64	298,155.61	5,000 —	20,000 —	36,332.01	45,415.97
1924	498	46,339,835	38,159.14	152,634.96	190,793.72	5,000 —	20,000 —	11,080.60	28,258.16
1925	570	71,000,282	60,921.86	243,699.46	304,624.32	5,000 —	20,000 —	5,319.19	51,912.75
1926	566	91,734,691	67,375.65	260,512.63	336,888.28	—	25,000 —	19,622.37	60,191.38
1927	580	91,678,302	61,412.82	257,698.51	322,111.67	—	25,000 —	9,661.92	66,406.1
1928	934	117,428,532	17,211.67	152,148.661	046,708.57	—	25,000 —	73,396 —	165,106.11
1929	1,098	169,396,990	20,496.49	181,168.471	021,825.51	—	25,000 —	73,607.12	153,273.31
1930	1,055	117,167,163	18,137.77	165,939.95	896,189.53	—	25,000 —	66,641.88	134,428.41

Fire

YEARS	NUMBER OF POLICES	VALUES ASSURED	DISTRIBUTION OF CONTRIBUTIONS PAID IN			GRANTS		RECEIPTS AND REBATES RECEIVED	
			Local associations	Regional association	Reinsuring bodies	Local associa- tions	Regional associa- tion	Local associations	Regional association
1921	1,140	78,824,053	7,243.05	14,486.12	375,836.22	3,333 —	6,667 —	—	16,826.42
1922	1,128	67,386,247	15,087.88	30,174.44	248,815.36	3,333 —	31,667 —	—	57,578.76
1923	1,332	97,751,061	44,839.63	183,140.69	227,971.32	5,000 —	20,000 —	8,229.22	28,961.56
1924	1,300	100,108,820	45,641.68	182,566.75	228,208.44	5,000 —	20,000 —	10,868.60	47,912.51
1925	1,486	148,097,250	71,069.70	281,278.97	355,318.67	5,000 —	20,000 —	23,778 —	83,322.21
1926	1,680	199,201,242	97,369.93	389,480.50	486,850.13	—	25,000 —	15,329.22	75,318.71
1927	2,026	240,604,659	104,221.14	416,884.59	521,105.73	—	25,000 —	15,633.12	88,688.61
1928	2,686	330,619,510	29,247.20	263,215.841	296,977.47	—	25,000 —	53,133 —	140,735 —
1929	2,967	343,963,051	36,382.91	327,446.251	429,555.81	—	25,000 —	117,742.09	21,386.61
1930	3,042	482,471,980	35,633.70	320,703.311	262,094.27	—	25,000 —	53,216.95	190,948.51
1931	2,913	377,418,527	76,451.41	467,086.571	393,482.21	—	—	169,199.01	180,045.81

Hail

CLAIMS DISTRIBUTION OF COMPENSATION PAYMENTS				DISTRIBUTION OF COSTS OF CLAIM			DEFICIT of the local associations	SUNDAY GENERAL EXPENSES AND REBATES MADE TO insured persons	
NUMBER	Local associations	Regional association	Reinsuring bodies	Local associations	Regional association	Reinsuring bodies		Local associations	Regional association
40	22,343.76	59,374.04	461,531.25	23,752.41	46,926.12	—	13,519.06	—	—
18	3,154.50	13,018.06	35,102.77	332.32	24,062.49	—	—	—	—
27	17,425.62	69,702.51	87,128.14	563.48	2,290.60	2,854.05	—	31,637.66	53,855.25
14	8,759.60	35,155.16	43,948.02	285.93	1,113.72	1,429.65	—	19,079.37	26,988.60
7	2,101.61	5,118.44	10,525.05	224.92	1,139.65	1,424.60	—	34,351.44	70,377.51
25	21,570.68	87,182.74	109,353.43	606.64	2,134.59	3,013.22	—	37,158.17	82,025.99
60	118,697.61	171,700.17	593,488.07	2,219.69	8,878.79	11,098.48	60,372.50	34,902.12	60,906.85
46	1,639.15	59,752.11	153,526.96	675.99	6,145.91	13,602.65	—	64,155.80	86,036.41
97	17,566.32	158,006.97	753,115.32	1,829.88	16,159.00	53,504.92	—	7,057.92	131,052.92
38	6,003.07	51,027.70	282,944.58	772.19	6,952.42	23,863.64	—	65,095.93	137,937.13

Fire

CLAIMS DISTRIBUTION OF COMPENSATION PAYMENTS				DISTRIBUTION OF COSTS OF CLAIM			DEFICIT of the local associations	SUNDAY GENERAL EXPENSES AND REBATES MADE TO insured persons	
NUMBER	Local associations	Regional association	Reinsuring bodies	Local associations	Regional association	Reinsuring bodies		Local associations	Regional association
—	13,922.09	27,643.95	325,553.83	20,569.88	12,588.99	—	—	—	—
21	4,717.65	9,195.29	90,803.95	1,056.13	22,231.92	—	—	—	—
14	18,838.24	116,755.41	146,194.26	1,217.15	4,865.73	6,085.58	—	24,119.41	22,602.37
22	18,371.68	75,534.92	93,906.60	500.50	2,181.99	2,682.49	—	42,820.80	24,218.80
45	74,432.35	197,729.42	372,161.77	2,271.00	9,084.04	11,355.05	23,778.97	39,637.60	35,003.36
38	69,392.15	277,568.72	346,960.87	1,902.20	7,608.54	9,511.04	7,264.05	57,168.57	48,404.94
46	42,962.69	171,850.80	214,813.49	2,670.66	10,682.64	13,353.30	—	60,044.86	73,790.28
75	17,235.41	155,297.30	964,168.12	1,210.52	10,894.68	47,137.06	—	89,291.76	93,133.86
57	12,941.47	116,173.32	669,518.53	1,302.78	11,725.12	46,692.48	—	97,601.90	121,873.95
73	21,194.19	190,747.73	776,170.80	1,688.02	15,192.19	51,314.47	—	68,251.68	154,866.02
46	17,474.28	100,883.12	326,777.71	1,426.44	9,572.50	27,068.30	—	102,170.16	219,189.94

to be formed the summit of the storm cumulo-nimbus must attain a height of from 10 to 12 kilometres and the base of these clouds must be 1,500 metres in length. The ice flakes of the high altitudes are seized on by whirlwinds, then they take the form of hailstones and as soon as they are large enough to withstand the force of the wind, they fall to the ground. The whole phenomenon is contained within a volume of about 100 square metres of area by about 10 kilometres in height. It will readily be seen that rockets and cannon, which cannot affect more than some hundreds of cubic metres, will be practically ineffective. As to the Niagaras, or lightening conductors of immense size devised some twenty years ago, they proved to be useless.

The Bulletin draws the attention of readers to the necessity of basing insurance rates on carefully prepared statistics to ensure the effectiveness of insurance. The information which has been employed so far for the establishment of the tables in question had been collected with a purely climatological purpose. If they are to be of value from the point of view of insurance they must be completed, as is stated in the Bulletin, by the valuation of damages. With a view to rendering possible the scientific determination of the rates of insurance premiums to be charged, the information should be supplied by the inspectors and officials of the Department of Agriculture.

Two tables are shown relating, the one to co-operative insurance against hail from 1921 to 1930, and the other, to co-operative insurance against fire from 1921 to 1931.

I. A.

BIBLIOGRAPHY ON ECONOMIC AND SOCIAL QUESTIONS

RUSSELL, Sir E. John. *The Farm and the Nation*. London, 1933. George Allen and Unwin, Ltd. 240 pp. Price 7s. 6d.

[In "The Farm and the Nation", Sir John Russell endeavours to supply in an easily readable form the essential facts on which any land or agricultural policy for the United Kingdom must be based. A delightful chapter is devoted to a description of the varied agricultural regions of Great Britain, their different farming systems and the problems that confront them in the present crisis. "No country in the world," says Sir John Russell, "has such wide variations of soil and climate compacted into so narrow a range as Great Britain. In consequence British agriculture is exceedingly varied. An intelligent person familiar with one region could probably suggest some simple way of improving the fortunes of the farmers and farm workers in that area, but he would probably find on further enquiry that the suggested method would be no use in some other region and might even make matters worse."

The different agricultural countries of the British Empire are also passed in review and their possible contributions to the food supply of the United Kingdom are discussed.

Dealing with the problem of the best use to which the land can be put in Great Britain, the author poses the preliminary question: What should be the purpose of British Agriculture? "We have," he says, "the choice of three things:

"(1) We can aim at growing more food for the nation;

" (2) At giving bigger wages and bigger profits for the people who are working on the land and so inducing them to do better;

" (3) At settling a larger population on the land.

" These three purposes are quite distinct, one could aim at any one of them with some chances of success, but to aim at all three probably means missing them all."

A striking illustration of the incompatibility of the two last aims is given. A farm of 909 acres of arable land in Norfolk was worked until 1928 on the old system, and employed 40 men. It was then thoroughly mechanised and the number of men employed was reduced to four. On the old system the lowest price at which wheat could be sold at a profit was 10s. per cwt.; on the mechanised system, 6s. per cwt. But what became of the 36 men displaced by the machines? At the time the book was written 10 had obtained other work; 13 were working on relief works, 9 were unemployed or doing uncertain and temporary work, and 3 of these were drawing old-age pensions; 2 were rat-catching and "keeping"; 2 were dead. The ten men who had obtained other work were the only ones who were satisfactorily placed; the remaining 24 were definitely worse off than before and in addition were costing the community between £1,200 and £1,500 a year for their maintenance.

According to the purpose which is chosen, there are various ways of dealing with British agriculture. Sir John Russell urges that the decision should be taken quickly and definitely, as the problem will only grow worse by delay. The same choice lies before other countries and in all countries those who are called upon to frame agricultural policy will have something to learn from Sir John Russell's authoritative statement of the problem as it affects Great Britain]

J. K. M.

Handbuch der Rationalisierung. Herausgegeben vom Reichskuratorium für Wirtschaftlichkeit, Bearbeitet unter Mitwirkung zahlreicher Körperschaften und Fachleute von Dr. F. Renter. Berlin, Wien, 1932. Industrieverlag Spaeth und Linde, S. 1327.

[The *Reichskuratorium für Wirtschaftlichkeit*, the Central Office for the movement for rationalisation of work in Germany, has just published a volume dealing with the subject of the scientific organisation of production processes in almost all branches of economic activity. In spite of the voluminous character of this work which extends to no less than 1300 pages, it has already in two years reached its third edition. The utility, even the necessity, for such a work is accordingly clear. This is the more remarkable as the publication coincides with the continued general economic crisis, which is considered in certain circles to be a direct consequence of the rationalisation movement.

It appears however that rationalisation, as a method of production and a principle of work which in accordance with the logic of economics makes possible better and cheaper production, ought not to be considered as a social evil. It is by no means easy to establish an absolute interdependence as to causes and consequences between rationalisation and the economic crisis.

It is well known that towards the beginning of the capitalist regime, after the Napoleonic war, a general crisis occurred in 1815, followed by another in 1825, and that there has been in fact a succession of crises throughout the whole century since that time. If it is decided to regard rationalisation, whether technical, psycho-physiological or economic in the general sense, as the underlying cause of all these crises, then the question arises, as to where the final objective of the steady economic progress of society is to be sought.

The rationalisation movement may well give rise to economic disorder, unemployment, etc., but not as such, and only as the consequence of its too hasty application

or introduction at the moment when the life of nations is already affected by economic trouble. In the national economy taken as whole as well as in each enterprise considered in isolation, various factors are at work which, if they are to form an harmonious social whole and to give an optimum return, must be in the right proportion mutually. If the rationalisation factor is perpetually being raised to a higher degree the other production factors must be at the same time raised to a corresponding level or the whole structure of the enterprise will be endangered.

Taking a survey of the world production of these last years, it will be noted that the production of raw materials in 1925 was 25 per cent. higher than in 1913 and that of articles of diet 10 per cent. higher. This increase has continued and in 1929 the increases relatively to 1925 were 20 per cent. and 5 per cent (*The World Economic Survey*, League of Nations, p. 25, Geneva, 1932). In 1925 unemployment began to be severe and in that year nearly five million persons were affected (p. 272-3). From that time onwards there has been a continuous increase in unemployment up to the figure, never before reached in economic history, of 30 million persons. In spite of this the hours of daily work of the workers has remained the same, although this is not justified by economic foresight and considerations of social interest. In place of reducing the hours of labour in accordance with the Washington Convention of 1919 and thereby enlarging the possibilities, for an increasing number of workers, of sharing in the production, the principle of "laissez-faire" has been taken as a guide, with the consequences which are a matter of common knowledge. Sufficient attention has not been given to the social aspects and the full importance these possess in economic life has not been assigned to them.

If the Washington Convention of eight hours work had been ratified by all the States unconditionally in advance instead of being applied empirically and sporadically, it is perhaps doubtful if we should be now confronted with this rising tide of unemployment and with the necessity of discussing the proposal of the 40 hours week in industry and in agriculture which was the proposal brought before the International Triple Conference of January 1933. This proposal is primarily social in character, as were the other post-war agrarian reforms.

The object of the transformation of large holdings into small family holdings was certainly not to increase agricultural production, but rather to emphasise the principle of social justice towards the large mass of country dwellers who had fought in the name of the homeland. It was a moral postulate as well as an absolute essential to social peace.

The First International Economic Conference declared itself for a judicious application of rationalisation: "It is considered" to quote the reports, "that the application must be carried out with all necessary foresight so as not to injure the legitimate interests of the workers, and that, while pursuing the process of rationalisation, provision should be made for appropriate measures in view of the contingency that the first phase of the process may result in loss of employment or a more toilsome form of labour." The Second Economic Conference will undoubtedly be called upon once more to discuss rationalisation and its consequences, but in an economic situation much more complicated than that of 1927.

More than 100 authorities on this subject have contributed to this volume which deals fully with the different phases of rationalisation, and the valuable information thus made available may be regarded equally as documentation and as providing a starting point for further work.

The book consists of three main divisions. The first part deals with the rationalisation movement, in the different parts of the world, as well as on the international

scale. A review is made of all the institutions undertaking the study of rationalisation in the widest sense of the word. In this part reference is made to the activity of the International Institute of Agriculture, which "has drawn attention to the scientific organisation of agriculture, has organised congresses and has arranged for the carrying out of research work."

The second part provides a masterly review of the forms of rationalisation, such as normalisation, standardisation, etc.

In the third and last part there is a detailed account of the methods of rationalisation, their application and results in factories, workshops, agriculture, forestry, and in the home. Each chapter of the different parts is followed by an extensive systematic bibliography constituting the directives for further investigations into each problem.

The general idea permeating this encyclopaedic work is that it is essential to follow a rational method in production and to bring a critical mind to bear upon the routine of organisation, since it is only in this way that it is possible to eliminate losses of material and energy occurring in the process of production and to avoid a waste of human strength.

The *Reichskuratorium für Wirtschaftlichkeit* is accordingly to be congratulated on having conceived the plan of bringing together so large a mass of valuable information on all branches of the rationalisation movement and on having presented it in so clear and logical a manner].

M. T.

RICHTER-ALTSCHLAFER, Hans: *Einführung in die Korrelationsrechnung* (Schriftenreihe des Instituts für landwirtschaftliche Konjunkturforschung, Heft 1), Berlin, 1931, S. S. 58.

RICHTER-ALTSCHLAFER, Hans: *Theorie und Technik der Korrelationsanalyse* (Schriftenreihe des Instituts für landwirtschaftliche Konjunkturforschung, Heft V), Berlin, 1932, S. S. 350.

[The method of correlation is so widely used in economic research and in inexperienced hands it so often lends itself to abuse, that it must be thoroughly mastered by those engaged in the investigation of economic problems, especially those dealing with the business cycle. To acquire this mastery, however, is not so easy, in spite of the great abundance of treatises and text-books in which correlation occupies a prominent place. Indeed, in advanced statistical treatises the subject of correlation is usually treated in so highly technical terms as to make it accessible only to persons with good training in higher mathematics. In elementary text-books, if they deal with correlation at all, one generally finds only the practical application of the method explained. Neither the one nor the other class of statistical manuals introduces the student to the subject by clearly setting out the logical background of correlation, except for pointing to its derivation from probability. Yet, it is precisely a complete understanding of the logical foundations of the method of correlation that the economist needs above anything else to be able to use it to advantage. Anyone in possession of two series of apparently correlated variables can calculate the coefficients of correlation, provided he has learned by heart the arithmetic of the proceedings; but to decide whether, in a given case, the application of correlation is legitimate and may be expected to yield useful results, as well as to judge of the real value of a coefficient of correlation, one must, besides a thorough knowledge of facts and conditions in the field of research, also have a clear grasp of the logical basis of the mathematical operations involved in correlating sets of variables.

How slippery is the ground through which the statistician has to find his way, using as he does for his inference the propositions of inverse or empirical probability, has been well demonstrated by Keynes in his *Treatise on Probability*. As Keynes puts it, the logical argument upon which the method of correlation depends, "can only strengthen a pre-existing presumption; it cannot create one." Accordingly, he proceeds, "sensible investigators only employ the correlation coefficient to test or confirm conclusions at which they have arrived on other grounds. But that does not validate the crude way in which the argument is sometimes presented, or prevent it from misleading the unwary, since not all investigators are sensible." Economists who have been interested in the development of market research from the methodological point of view, will probably accept this without much hesitation. All the more they will welcome the appearance of some recent publications which do much to promote a clearer understanding and a more sensible use of the method of correlation. Besides Ezekiel's *Methods of Correlation Analysis*, published in the United States in 1930, to this class of welcome additions to the economist's library belong the two books under review.

The *Institut für landwirtschaftliche Konjunkturforschung* did well, indeed, in starting its series of publications by an elementary introduction to the method of correlation, which, a year later, was followed by another, much larger, volume, containing a fully reasoned statement of the mathematical theory and technique of correlation.

Both the *Einführung in die Korrelationsrechnung* and the *Theorie und Technik der Korrelationsanalyse* are essentially text-books for the student possessing only an elementary mathematical training. In the first of them, mathematics are as far as possible avoided, while the second, while it develops mathematical reasoning in full, presents the subject with great skill and simplicity and supplies the reader, by the way, with the essentials of higher mathematics necessary to follow the argument.

The *Einführung* starts from an exposition of the first elements of mathematical and statistical probability as basis for expectation and prevision. The stochastic foundations of the method of correlation are clearly brought out, after which, through the determination of regression lines and standard errors, the student is led to the Pearsonian coefficient of simple linear correlation. In the concluding pages, non-linear and multiple correlation are briefly outlined, their fuller treatment being left to the next volume.

The leading idea of the author, which he is at pains to impress upon the student throughout, is that the method of correlation, in spite of its apparent mysteriousness and difficulty, is essentially simple if presented without overmuch technical detail.

In the *Theorie und Technik*, we are faced with a complete exposition of the subject of correlation, in so far as it is required for economic research. Here, without in any way sacrificing the subject matter to the need of simplification, the author achieves his purpose of fully unveiling the "mysteries" of correlation to the eyes of a layman. The book begins with the examination of the relations between the method of correlation and the theory of probability, showing how, in economic research, owing to complex causation, stochastic connection has to be substituted for functional dependence such as it exists in the field of natural science. Following Tschuprow in his general argument, the author draws a clear distinction between the concepts of function, on the one hand, and of stochastic connection, on the other, pointing to the method of correlation as the instrument of investigation specially designed for research in the fields to which the latter applies. In using this method, however, one must never forget its limitations, in so far as all it can do is to establish "more or less loose and vague relations of probability." The conclusions reached one "can

never trust blindly ; ” they, ‘ first and foremost, always require the support of closely reasoned theoretical argument ’ These words are a useful warning to the beginner in economic research who is being equipped with a powerful but often dangerous apparatus

There is no need to go into the exposition of the subject matter of the treatise, which takes the student step by step through the determination of regression equations and coefficients, standard errors and coefficients used to measure the closeness of simple linear correlation between variables One interesting departure from the generally accepted practice should, however, be noted in this connection To the Pearsonian coefficient of correlation the author prefers another constant, which he calls *Abhängigkeitskoeffizient* (coefficient of dependence), designated by the symbol *AK*. This stands in close mathematical relation to the Pearsonian coefficient, of which it is the square, but especially in a treatise such as the one under review, it possesses the very important advantage of being arrived at by very clear logical steps easily followed by the student

From linear correlation the student is led to simple non-linear and to multiple correlation, linear and non-linear. In a special section, the more complicated case of multiple correlation for variables operating jointly is also explained, and the correlation surfaces in which it is expressed are shown. Thus, while the student is given a good training in the theory and technique of the methods he will actually require in his practical work, he is also permitted to have an intelligent glimpse into the more abstract and difficult regions of the higher theory of the subject

In the Conclusion, the book contains a passage which is worth quoting, namely : “ Only with the greatest circumspection, with great conscientiousness and with a thorough knowledge of the field of research, as well as with a capacity for theoretic analysis, one is in a position to undertake the investigation of a problem by means of correlation. If the reasoning apparatus which guides the work is defective, our methods are useless and even dangerous, but when directed by a mind conscious of its purpose, they are fruitful and can contribute to the extension of our knowledge in an extraordinary degree. Indeed, the success of research by means of the method of correlation depends not so much upon the instrument itself, which is excellent, as upon the use that is made of it. ” The author has certainly done much to help the successful use of correlation by those who study his treatise and follow his advice].

G. P.

KAREL ENGLIŠ, Prof.: Finanzwissenschaft. Abriss einer Theorie der Wirtschaft der öffentlichen Verbände mit besonderer Berücksichtigung der Tschechoslowakei. Verlag Rudolf M. Rohrer, Brünn-Prag-Leipzig-Wien, 1931, pp. 430.

[This work, which is a translation from a Czech original, consists of five main parts. After having given in the first part a concise survey of the public associations of an economic or cultural order, the writer proceeds in the second part to the detailed explanation of the the financial system of the State, that most important of public associations. He notes first all the advantages and drawbacks of the administration of the public economy by a collective body, the activity of which does not, as does a private enterprise, receive the stimulus of personal interest, and he emphasises the division of labour in public life between the State and the non-official organisations.

Considerable space is given to the taxation system, the classification of taxes according to the different principles, and to the establishment of receipts and expenditure in the annual budget of the State. The writer brings out clearly the tendency, in public life, to multiply taxation in place of imposing a single tax on the total income, a method which from the administrative standpoint is much the easier, but on the

other hand always meets with psychological resistance owing to the fact that the taxpayer is more aware of the burden. The view of the physiocrats, with which Henry George concurred, that there should be no tax on agriculture other than the land value tax, is condemned as being retrograde and no longer corresponding to capitalist economy, under which the farm brings a return not merely in consequence of the increase of the gross product, but also a return expressed in value and resulting from commercial transactions. Thus it is that the agricultural tax includes also the tax on turnover, as is the case in industry.

The problem of credit, as a source of the State finance, is considered here as an essential component of the whole financial system, and the general lines of the organisation and working of the credit system are indicated.

The third part deals especially with the economy of independent organisations; the fourth with the relations of the public and the national economy, with special reference to the Czechoslovakian economy. Considerations of a general kind are contained in the fifth part, which curiously enough bears the same title as the whole book, *viz.* "Science of Finances."

The scientific acumen of the statesman is clearly evident in the whole statement of the subject of finance. The author who is Professor of the University of Brno was formerly Finance Minister of Czechoslovakia. The outstanding characteristic of the method employed by the writer and the one it is desired to emphasise here is the philosophic spirit. Taking as a basis the "Critique of Pure Reason" with its distinction between substance in itself (*Ding an sich*) and its manifestation (*Erscheinung*), together with the researches of one of the most eminent of the German philosophers of our day (Rickert of Heidelberg), he endeavours to show that economic and financial activity, whether of an individual or of the State, does not admit of complete interpretation apart from the application of the teleological principle. In other words, the importance is attached to the *purpose* with which this or that course is entered on, not to the question *why*, following the method of causal logic, nor the *how*, in accordance with the psychological method. This conception of political economy and this deliberate linking of the economic reason to a more general philosophic principle gives a special character and a peculiar interest to these researches.

Another feature to which attention may be drawn is the markedly social trend of the economic theory of the writer. He maintains that all economy, whether public or private, must be directed by the supreme principle of a rational production. Where however this principle comes in conflict with the interests of society and of man, then it is man who must come first and rationalisation as such must yield place to him: "The increase of productivity in a country," says the author, "is not the final end of the State economy and of the policy of the State. Whenever the interest of productivity conflicts with the ideals of the human being and of a nation, then the victory is to these, since it is not a question of securing a maximum activity at any price, but of ensuring the continuous life of the people and their development on sound lines. A productivity which is obtained at the cost of human values, with injury to the life, health and culture of the workers, is not truly economic from the standpoint of the ideal of the individual and of the nation" (pp. 340-341).

The technical competence of the writer makes this book of special value alike from the scientific standpoint, and also as a textbook. On the social side its broad conception of human economy and of public finances makes it a book to be read attentively and pondered over, especially at this juncture, when unemployment is everywhere pressing upon us, and when "Progress and Poverty" are confronting each other to the despair of civilisation].

M. T.

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Nº 5

CO-OPERATION

Co-operation in Estonia.

I. — HISTORICAL DEVELOPMENT OF CO-OPERATION.

Agricultural co-operation was started in Estonia in the beginning of the present century, although mutual self-help, especially in respect to fire insurance, had been organised already in the second half of the past century.

The organisation of agricultural co-operation was caused by the reorganisation of agriculture, which with the coming of the new century proved necessary. Up to the beginning of the present century agriculture was carried on on the territory of Estonia with special regard to the growing of cereals and flax. In the sixties of the past century one third of the actual agricultural area of Estonia in some places was sown with flax. The low prices quoted for cereals in Russia affected adversely the prices for this product and no protection could be found, as the actual territory of Estonia then formed a part of Russia. In the seventies of the past century and in the beginning of the present century flax prices in their turn showed a decreasing tendency, in consequence whereof from the last few decades of the past century onwards Estonian agriculture persisted in a state of crisis, which it was endeavoured to overcome by the transition of agriculture from grain and flax cultivation to cattle breeding.

This change required the investment of new capital in agriculture and simultaneously necessitated an intensified soil cultivation as well as a wider utilisation of artificial fertilisers and machinery. On this account favourable preliminary conditions were created for the development of credit societies. At the same time the agricultural societies engaged in promoting agricultural reorganisation suggested that it would be reasonable that the means used in agricultural production, as for instance artificial fertilisers and different agricultural implements, should be jointly purchased. These joint purchases, at first more or less occasional, in the course of time acquired an organised form out of which the agricultural buying companies arose, under the name of "economic societies."

With the development of cattle breeding the formation of co-operative dairies as well as of stud cattle societies proved necessary.

The introduction of machinery into agriculture brought into existence a number of co-operative societies for the use of agricultural machinery.

This extensive development of agricultural co-operation attained its full impetus at the time the world war broke out, which temporarily interrupted this movement, full of power and vitality. In 1920 the interrupted development was taken up again and continued in pursuing its former route. This development was first of all facilitated by the rather extensive law concerning co-operation which had been put into operation in 1917 and by which any restrictions imposed on the formation of societies in the Russian times were abolished. Dairies, co-operative stores and co-operative credit societies were formed and federated in central societies.

The independence just attained was accompanied by a land reform and thus by a considerable development of the small farmholding, which was a further stimulus to the extension of co-operation during the first years of independence. It was suggested that the utilisation of the machines and of the different industrial installations of the large estates would be most effective if carried out by the aid of societies, consisting of the colonists who had established themselves on the land plots of the parcelled estates, as well as of other farmers of the neighbourhood.

Potato societies, which are, in fact, co-operative distilleries, have been formed exclusively of the former distilleries of the estates. The land reform also favoured the formation of a series of peat societies, this being due to the fact that the distribution of the peat bogs was carried out with preference given to peat societies.

These are in brief the economic conditions and stimuli which favoured the organisation of agricultural co-operation and we may now proceed to the consideration of the laws governing co-operation.

2. — LAWS GOVERNING CO-OPERATION.

Strictly speaking a law concerning co-operation did not exist in Estonia until 1917. The activity of the credit societies obtained a legal basis but previously to the war. The first societies operated according to statutes approved by the Russian Emperor. Such approval before being attained was the subject of long and difficult negotiations with the State institutions which feared that the societies might attempt revolutionary action.

The Russian revolution of 1917 first introduced into Russia a fair law concerning co-operation, which later on was adopted by the independent Republic of Estonia after the latter had been separated from the territory of the Russian Empire. Different parts of the law have been completed, the principal addition consisting in the establishment of a compulsory audit carried out by persons not connected with the society.

The constitution of a society usually provides for a general meeting which elects the management committee of the society and an audit committee by which the control is carried out. Credit institutions must moreover have a council of control to supervise the work of the administration and to determine the direction of such work. In this way the work of the credit societies is subject

to closer supervision. The requirement of a compulsory council does not apply to the other societies, although such a council exists in the separate economic societies and dairies, as well as in many central societies. Societies containing over 300 members are entitled to form a body of representatives, who act in place of the general meeting or parallel with it.

At the general meeting of the society each member has one vote, which may be transferred and does not pass to his heirs. The law concerning co-operation has lately been supplemented by a provision to the effect that at the general meeting of a marine insurance company a member may have several votes, the number of which however must not exceed one tenth of the total number of votes held by the members of the society. In the marine insurance societies the voting right may be transferred in a manner precisely laid down by the rules. Without the introduction of such an amendment the co-operative organisation of marine insurance had been found to be impossible.

The unlimited liability provided by the law as a rule does not exist in the societies; the rules provide solely a limited liability, and there is no prohibition as to the entire omission of any additional liability on the part of the members.

The Government endeavours, by different legislative means, to ensure that co-operation shall be established on a sound basis. To this end:—

(1) Audit by persons not connected with the society has been made compulsory.

(2) The Government has been given the right to prevent the formation of superfluous societies.

(3) The Government has the right to suspend the operations of societies infringing the rules or the law, or not fulfilling the requirements of a correct management of affairs.

(a) *Organisation of the Compulsory Audit.* — Since 1919 any societies operating in Estonia are subject to a compulsory audit carried out by persons not connected with the society. At first the audit was carried out in every district by the Court. Since 1926 however new rules have been in force in this matter. According to the law every co-operative society must be member of an audit union created by the societies for the purpose of making audits and managed by them. This union must see that in the course of two years every society shall have its accounts audited at least once, in default of which the Minister of Justice and of Interior may deprive the union of its right to make audits.

According to the law the administration of the societies is bound to lay the auditors' report before the next general meeting, on which it depends whether to take into account or not the matters taken up by the auditors.

The amendment of the law concerning co-operation made in 1931 extended the power of the audit unions by giving them the right to convene the general meetings of the societies, if the results of the audit made necessary a prompt decision of the general meeting, and to apply to the Minister of Justice and of the Interior for an examination of the society's operations in case the society should not within a fixed period remove the defects which came to light during the audit.

By virtue of this latter right the audit unions have naturally the possibility of interfering if the societies do not act correctly.

(b) *The Right of Government to Regulate the Formation of Societies.* — Until 1931 the formation of any co-operative organisation was admitted without any restriction. To this end no Government authorisation was required. The rules only had to be registered and the society could start operations. On account of the formation of superfluous societies in some branches of co-operation, which resulted in unhealthy competition between the societies, the Government decided in 1931 to obtain from the State Assembly the right of interference in such case. Since 1931 a Government licence has been required for the formation of co-operative loan societies, as well as of mutual insurance companies which are to operate in a larger area than a commune. Such a Government licence is also required for the formation of new dairies, separating stations, and milk receiving centres. By this means it is hoped to prevent the formation of undertakings not likely to prosper and to avoid useless losses in such important branches of Estonian agriculture as the co-operative handling of live stock products, co-operative credit, and insurance. For the formation of societies of other kinds no Government authorisation is required.

(c) *The Right of Government to Stop the Operations of the Societies.* — In order that no unsound and injurious activity may be carried on under the name of co-operation, the Government, in addition to the right to regulate the formation of societies, obtained the right to suspend the operations of such societies as do not act in conformity with the requirements of the laws and of the rules, or the suspension of the operations of which has been suggested by the auditors who carried out the audit, or, in the case of insurance companies, by a special supervising body. Thus if the affairs of the societies have not been found in an absolutely correct state their operations may be suspended. This right of the Minister of Justice and of the Interior, however, does not apply to credit institutions, the operations of which must be suspended in the same circumstances as other credit institutions operating in the form of limited share companies, which must cease doing business if they have lost one third of their share capital.

3. — TOTAL NUMBER OF SOCIETIES.

On the territory of the Estonian Republic there operate about 3000 economic societies. Thus there is roughly one society to every 400 persons, which proves the wide extension of co-operation in Estonia. To a certain extent however these figures are open to criticism and it should be borne in mind that in many cases, especially in agriculture, the same individual is a member of several societies.

Of the total number of societies about 2,800, or more than nine tenths of the total number of the societies are agricultural co-operative societies. Among the townspeople and the working classes, co-operation is not very highly developed.

As to the separate classes of agricultural societies, these are to be divided into the following groups: (1) societies for the handling and sale of products; (2) societies for assisting agricultural production; (3) co-operative credit institutions, (4) economic and distributive societies of consumers, and (5) co-operative insurance companies.

According to the data as on January 1, 1932, the total number of societies was divided as follows :

I. — Agricultural societies for the manipulation and sale of products including :

Dairies	443
Potato societies	103
Flax-growers' societies	7
Miscellaneous societies	39
	— 592

II. — Societies for assisting agricultural production including :

Societies for the utilisation of machinery and different agricultural installations	676
Peat societies	577
Societies for the supply of electricity	6
Stud cattle and cattle breeding societies	136
	— 1,395

III. — Co-operative credit institutions (granting credits to agriculture) 165

IV. — Economic societies and wholesale societies of consumers (serving agriculture) 200

V. — Co-operative insurance companies 421

4. — CO-OPERATIVE MANIPULATION AND SALE OF AGRICULTURAL PRODUCTS.

(a) *Co-operative Dairies.* — Cattle breeding represents the principal branch of agricultural activity in Estonia and in connection with it dairy farming is of particular importance. Co-operative dairying has in the course of a few years attained considerable results and its constantly rising importance is gratifying. Between 1923 and 1930 the number of the butter exporting dairies registered at the State control station for the export of dairy products increased from 130 to 306, while the number of private dairies at the same time declined from 94 to 41. Dairy farming is thus entirely governed by co-operation. In addition to the co-operative dairies producing butter for export, there are 137 societies, the activity of which consists in the joint sale of milk, or in the maintaining of a separating plant and in the sale of cream mainly to the nearest dairies producing butter for export.

According to statistics available in respect to co-operative dairies 67,000 farming households take part in the supply of milk to the dairies or half of all the farms of Estonia. In order to give an idea of the organisation of the Estonian dairy farming it should be pointed out, that as compared with the territory of the Estonian Republic the existing 347 private and co-operative dairies producing butter for export do not form a close network, for there is frequently a distance

of 15 to 20 or more kilometres between them, this circumstance no doubt rendering somewhat difficult the transport of milk by the farmers, especially in the case of unsuitable roads. Such a state of affairs made it necessary to establish separating stations where the milk received from the farmers is separated, and the separated milk is at once returned to the farmers, while the cream is sent to the dairies, where it is worked mainly into butter. Cheese is rarely produced by the co-operative dairies, this being usually done in the private ones. The separating stations included, Estonia possesses milk receiving centres consisting of 925 units, the distance between them, in the case of half of the total number of dairies, being not over 8 kilometres, the milk accepting centres thus in most cases being situated at a distance of not more than 4 to 5 kilometres from the farms.

As a rule the farmers themselves transport the milk, in separate cases only the milk is transported by the dairies on means belonging to them, usually on motor lorries. Such a collection of milk is rather troublesome on account of the farms being widely dispersed. In order that the farmers of the farms situated far from the milk receiving centres should not be placed in a position much worse than that of the farms situated in the proximity, in certain dairies the cost of transport is reimbursed to the farmers according to the quantity of milk, the cost being greater the greater the distance.

In 1930 the quantity of milk handled daily in a dairy amounted on the average to 1.1 millions of kg. against 376,000 kg. in 1924, which shows that the increase of the number of dairies proceeded parallel to the enhancement of milk production, which was partly due to the increased number of cattle, partly to the greater yield of milk per cow. In the development of milk production the co-operative dairies played a decisive rôle.

The skimmed milk is usually returned to the farmers who utilise it for the feeding of pigs.

Estonian butter, which in 1931 was exported in quantities amounting to 14,000 tons, in pre-war times was consumed by the capital of Russia, whereas at the present time it is exported to Western Europe, especially England and Germany, and in less considerable quantities to Belgium, France and Switzerland.

With a view to getting a higher price on the foreign market it was absolutely necessary to pay attention to the good quality of the butter produced, and in this direction again the co-operative societies have been of great importance. The principle of the co-operative dairies consisted in paying for the milk a price calculated in accordance with the percentage of fat and by taking also into consideration the quality of the milk as determined by the aid of the reductase test. Until 1930 14 per cent. of the dairies had voluntarily adopted this principle and paid for the milk accordingly. However, it frequently occurred that the dairies carrying out this reasonable arrangement had trouble with the dairies of the vicinity and therefore on 1 June 1932, the Government intervened by establishing a compulsory price to be paid for the milk according to its quality as determined by the aid of the reductase test. By this means it is hoped to attain a careful treatment of the milk by the farmers, especially as regards milk cooling, which will

improve the quality of the collected milk and consequently of the milk products, and raise the price obtained for them on the foreign market.

The Government has moreover tried in another way to raise the quality of the articles produced by the dairies, *viz.*, by establishing an export control, consisting in the technical supervision of the dairies and in a thorough control of the products in respect to quality, taste and water content, carried out in the export warehouses and laboratories. The controlling institution, called into existence by the State but maintained by the producers, supplies the dairies without charge with the pure culture of lactic acid, this arrangement also being undertaken to attain the uniformity of the article produced and to raise its quality.

The total yield of milk in Estonia in 1930 amounted to 811,000 tons, of which 380,000 tons were brought to the dairies; 47 per cent. of the total yield of milk in Estonia was thus handled by the dairies, 41.5 per cent. being handled by the co-operative dairies and 6.5 per cent. by the private dairies.

More than nine tenths of the Estonian butter production are destined for the foreign market, 61 per cent. of the entire export being effected by the co-operative societies.

(b) *Potato Societies or Co-operative Distilleries.* — The sandy ground of Northern Estonia favoured the cultivation of potatoes. For the utilisation of these potatoes in pre-war times on the territory of Estonia 278 distilleries were established by the great land owners. The alcohol produced in the distilleries was sold to Russia. After the large estates had been liquidated in consequence of the land reform carried out the said distilleries were taken over by the co-operative organisations of potato cultivators, and in this way there came into existence co-operative distilleries under the name of potato societies, for they chiefly use potatoes for the production of alcohol and potato starch.

The chief consumer of the production of these co-operative distilleries is almost solely the State alcohol monopoly, for since 1924 the alcohol export has been rather insignificant owing to the prohibitive system in force until recent times in the countries adjoining Estonia which might have been expected to be buyers. As to the distant markets, the Estonian alcohol being produced from rather high priced potatoes had to compete with the alcohol produced in several states of Central Europe from the cheap waste of sugar production and of other waste.

During the second quarter of 1932, after the prohibitive system in Finland had been abolished, the alcohol export has been taken up again, however within restricted limits.

On account of the State being almost the only consumer of alcohol, the work of the co-operative distilleries is greatly restricted and is determined by the quantity of alcohol required annually by the State.

Owing to the lack of a wider outlet for the existing 278 distilleries only 129 are operating, a part of them belonging to private firms. In addition to the production of alcohol some co-operative potato societies also produce potato starch, which is partly placed on the home market, partly is compelled to look for markets abroad.

Of the total yield of potatoes from 6 to 7 per cent. are used for the production of alcohol and starch, the potato societies thus being in Estonia of less

importance in the disposal of potatoes than are the dairies in the disposal of the milk output. Nevertheless the importance of the potato societies in the utilisation of waste potatoes and of potatoes of inferior quality deserves mention, particularly as the residues of alcohol production represent a valuable fodder for cattle in the winter period.

About half (57 distilleries out of 129) of the distilleries operating in Estonia are affiliated to a central organisation of potato societies, which in addition to the distillation and sale of alcohol is engaged in the development of potato cultivation.

This co-operative central organisation has attempted also to engage in the potato trade, especially the export of potatoes; these attempts, however, did not succeed owing to the lack of experience and to the absence of the necessary equipment on one hand, and to the risk connected with the undertaking on the other.

(c) *Co-operative Slaughter Houses and the Organisation of the Sale of Live Stock.*— The chief article produced by the Estonian dairies is butter. The production of cheese is limited. Therefore the separated milk is returned to the farmers, and consequently the question arises as to which would be the most reasonable way to utilise it. The breeding of pigs presents one of the possibilities for the utilisation of the separated milk. However, as the home market had a limited capacity for absorbing the products obtained from a developed breeding of pigs, it was necessary to think of export possibilities and of the production of bacon for the English market. The slaughtering capacity of the four slaughterhouses of Estonia amounts to 260,000 pigs annually, but they have hitherto been used up to less than a third of their capacity, for in 1931 only about 70,000 pigs were slaughtered in the slaughterhouses.

The intensified breeding of dairy cattle favours the development of the breeding of pigs, which on the other hand is encouraged by the export premium paid by the State. As a result, the number of pigs in Estonia in 1931 had risen by 11.3 per cent. as compared with the preceding year.

The bacon export is entirely organised by the co-operative societies, for all the slaughterhouses belong to them.

The collection of the pigs on the spot is carried out through the co-operative dairies, the distributive societies of consumers, and also by the agents of the slaughterhouses. Each pig purchased is marked on the ear with a number and payment is made later on to the farmer for each pig separately, the amount of the payment being determined by the weight of the slaughtered pig and by its quality. For pigs of superior quality, from which high priced bacon is produced, in addition to a higher price a special premium is accorded to encourage the improvement of quality.

Owing to the fact that in the payment for pigs special account is taken of the quality and that a premium is given for pigs of superior quality, the quality of Estonian bacon, the production of which was started in 1922, has attained a rather high level.

The work done in connection with the raising of the quality of bacon has been developed to such an extent, that latterly 85 per cent. of the pigs slaughtered

for export have given bacon of superior quality. The services rendered by the export slaughterhouses and by the organisations for pig breeding consist in the prompt reorganisation of the Estonian pig breeding, as a result of which long and lean bacon pigs are being bred in place of fat and heavy pigs. As a service rendered by the export slaughterhouses there should also be recognised, that by opening butchers' shops in the towns the supply of meat to the home consumers in many centres has been taken over by the producers themselves.

The sale of pig-meat to the foreign markets has thus been effected to a satisfactory extent. One of the slaughterhouses has even succeeded in exporting live stock and meat, especially mutton, into the neighbouring countries. The co-operative organisation of the sale of live stock on the home market hardly exists at all.

Owing to the considerable decline of the prices for meat products in 1931, which forced the farmers to look for ways of increasing their incomes, the organisation of an intensive sale of live stock has been undertaken. By the law the basis has been laid for the creation of permanent live stock markets in the towns, where live stock shall be sold by live weight and the prices of live stock and of slaughtered cattle shall be quoted. By organising a market of this kind for the present moment only in Tallinn, the capital of Estonia, it is hoped to establish the preliminary conditions for the organisation of the co-operative export as well as of the co-operative sale of live stock on the spot.

(d) *Co-operative Organisation of the Sale of Eggs.* — Simultaneously with the development of the breeding of dairy cattle and pigs, progress has been attained in the breeding of small stock and particularly in poultry-keeping. From 1922 to 1930 the production of eggs increased by 233 per cent. The rearing of table poultry is of a minor importance.

One fourth of the total egg production is intended for export (according to the data for 1930 it was 27 per cent.). In this line the co-operative societies have found a favourable field of activity. In 1931, 41 per cent. of the total export of eggs was effected by the co-operative societies. These organisations collect the eggs by aid of the grading centres, where the eggs are received, each separately marked with the stamp of its origin, graded and packed in standard cases. The eggs are brought to the grading centres by buyers, by the dealers of the neighbourhood, by the distributive societies of consumers and by the co-operative dairies, or by the persons who maintain the grading centre on their own means of transport. On account of the small quantity of eggs, no independent egg collecting societies could have been established. The aim actually pursued consists in the concentration of egg collection in the existing co-operative undertakings, particularly in the co-operative dairies, to a wider extent than has been done before, in order to remove in this way the agents from the organisation of egg collection. The supply of eggs to the domestic market effected by the co-operative egg shops is but a restricted one, this supply being carried out by the small dealers. The price paid for the egg is determined in accordance with its weight. Eggs are divided according to weight into two classes, eggs less than 50 grammes and eggs over 50 grammes in weight. The freshness of the egg is, of course, also taken into consideration.

The egg export is carried out under the control of the State. The canning of eggs for home consumption is effected to a limited extent. In autumn the co-operative societies are moreover engaged in the export of dead geese, ducks, and turkeys to the neighbouring countries

(e) *Co-operative Societies for the Sale of Vegetables and Fruit.* — For many years past attempts have been made to organise the co-operative sale of vegetables and fruit on the home market and abroad. As to the sale to foreign markets there has been some success in the export of fruit to Finland. These are however attempts which have not yet reached considerable results. At the present time standardisation is being undertaken.

(f) *Societies for the Handling and Sale of Flax.* — On the Estonian territory flax cultivation represented in the past century an important branch of agricultural activity. Sometimes one third of the total agricultural area was sown with flax. In the course of time, however, this importance greatly diminished and in pre-war days the flax area was constantly reduced.

The high level of flax prices after the world war gave a new impetus to flax cultivation. Until 1925 the area sown with flax grew rapidly. In pre-war times the working of flax was carried out by hand and the sale was effected through private dealers. Therefore it was suggested that the profitableness of flax cultivation might be enhanced if the expensive hand work were replaced by the working by aid of machines. Mainly on a co-operative basis factories were founded for the working of the raw flax and a central society for the sale of flax. Rather large amounts of capital were invested. But flax prices dropped and flax cultivation received a setback, on account of which the factories ceased to be able to work profitably and stopped working. The continued crisis in the flax market did not allow the factories to start working again. The central society for the sale of flax suffered in the same way and was likewise compelled to cease working.

5. — SOCIETIES WHICH ASSIST IN AGRICULTURAL PRODUCTION.

In addition to the classes of societies enumerated which are engaged in the preparation of the articles for sale and in the organisation of the sale, in Estonia a great number of societies exist which participate in the processes connected with production, either by procuring in common means used for production (societies for the use of agricultural machinery, grain drying societies), or by creating possibilities for producing (peat societies). The system of small landed properties renders necessary the existence of such societies.

Societies for the use of agricultural machinery, particularly for the joint use of threshing and grain grading machines, were first formed at the beginning of the present century. After the carrying out of the land reform, when the machinery of the large estates had to be utilised by the farms established on the area of the large estates, the number of these societies increased. The central organisation of the societies for the use of agricultural machinery gives technical advice to the societies and directions as to the keeping of accounts.

The wet weather in Estonia in autumn necessitates that the grain should be dried before being placed on the market or stored. As it would be troublesome for each separate farmer to procure a grain-drying machine, which is only used during a short period in the year, co-operative grain-drying societies have been formed. The newly formed farming households frequently do not separately procure grain-drying machines, this being done jointly by several households.

Of the total area of Estonia, 14.7 per cent. is covered with moors. The moors supply a valuable fuel, *viz.* peat, which made possible the establishment of an electric station of high tension, the main wires of which cross the country in every direction, a fact providing favourable conditions for the electrification of agriculture, and offering possibilities for the working of electricity supply societies. Nevertheless these societies are scarcely developed, being only six in number; this may be explained by the fact that in Estonia only a few villages exist in the separate parts of the country, while usually the farms are dispersed, on account of which the procuring of electric installations and the utilisation of them would be too expensive.

These areas covered with peat have caused the formation of another class of societies, that of peat societies, engaged in procuring their members peat bogs, mainly by the way of leasehold, where peat cutting may be undertaken either by any member separately, or by the whole society. The peat is partly used as fuel, in most cases however, as a litter for the cattle, for it is a splendid absorber of the fluid excretions of the cattle, and thus forms a nitrogenous fertiliser.

The majority of the peat societies is affiliated to a central organisation, which gives them technical advice and directions as to the keeping of accounts.

For the purpose of cattle improvement there were established stud cattle societies providing their members with stud cattle of high quality. The stud cattle are often imported from abroad, which would be impossible for a separate farmholding. In the matter of cattle improvement hard and successful work has been accomplished by the co-operative societies.

6. — CO-OPERATIVE CREDIT INSTITUTIONS.

The co-operative credit institutions count among the oldest co-operative institutions of Estonia and were first formed in 1902. In the beginning of the development of this kind of institution they were divided into two different types: institutions with a wide field of activity, known under the name of credit societies, embracing chiefly the middle classes of the towns and thus being of the nature of the Schulze-Delitzsch people's banks, and institutions with a restricted activity, the so-called savings and loan societies, which mainly served agriculture and thus were of the type of the savings and loan societies of Raiffeisen. This difference of types was approved by the law.

In 1920 the juridical difference between the two types was abolished and there remained a single type of co-operative banks. As a matter of fact, however,

two types of co-operative credit institutions arose ; institutions which operated in any branch of banking business and thus represented co-operative banks in the full sense of the word, while the smaller co-operative loan institutions in the country confined themselves exclusively to savings and loan business and were opened for such business once or twice a week. By the law concerning credit issued in April 1932 these two types of loan institutions have been legally approved and again established under the name of co-operative banks and savings and loan societies. This difference provided by the new law not having been as yet practically realised, it is not possible to state how many of the existing credit institutions may be counted among co-operative banks, and what is the number of those to be regarded as savings and loan societies.

According to the law the co-operative banks may carry out any operation executed by commercial banks ; they are entitled to grant loans to non-members on previous decision taken by the general meeting. The activity of the savings and loan societies is limited to the acceptance of deposits and to the grant of money loans to the members, exclusively against promissory notes, the granting of loans founded on bills being prohibited.

The savings and loan societies must contain at least 25 members and the co-operative and central banks at least 50 members. A smaller membership prevents the credit institution from starting business and the society is compelled to cease working when the number of the members falls below the prescribed number.

To co-operative institutions, both to co-operative banks and to savings and loan societies, a special right has been given to grant loans on the security of implements and tools used in agriculture and hand industry, the articles accepted as security remaining in the hands of the borrower, who may continue to utilise them.

All the co-operative credit institutions described obtain their working capital in the form of deposits. In the co-operative credit institutions in the towns these deposits are for the most part placed on current account, while in the country they are placed on deposit account. Latterly there figure in the balance sheets of the credit institutions also current accounts and guaranteed loans. Short term bills, if such are kept by the bank, may be rediscounted by the co-operative banks in the bank of issue. Promissory notes may be rediscounted in the State Mortgage Bank. Two co-operative central banks act as financial centres for the co-operative credit institutions and utilise their surplus capital. One of these central banks accepts as members only the co-operative institutions, the other accepts in addition to the co-operative institutions also private persons.

In connection with the execution of the land reform and with some measures of agrarian policy taken by the State the latter has directed the loans into agriculture through the co-operative banks. These sums, however, play a rather insignificant part in the balance sheets of the credit institutions.

As a rule the co-operative credit institutions grant to agriculture short term working credits. In accordance with the law the term of the loans granted must not exceed a year.

No statistics are available as to co-operative credit institutions serving agricultural interests, so that no data can be presented concerning their activity. The importance of the co-operative credit institutions in the economic life of Estonia is nevertheless clearly indicated by the following figures collected up to November 1, 1931, relating to all joint stock banks and to 182 of the most important co-operative credit institutions out of 230 similar institutions operating in Estonia.

	Private banks	Co operative credit institutions
	(millions of crowns)	
Capital	7.2	5.0
Deposits	37.7	34.1
Rediscount and debt accounts in other banks . . .	28.6	7.9
Loans	67.3	43.1
Securities	6.0	1.1

As may be seen from the above figures the co-operative credit institutions, as regards banking capital, are not on a level with the joint stock banks; in the handling of deposits, however, their position nearly corresponds to that of the joint stock banks. The co-operative banks generally operate within the limits of their own capacity and do not use credits of the Bank of Issue and of other financial institutions to such an extent as the joint stock banks usually do. It should be pointed out, that the activity of the co-operative institutions is steadily increasing and that their position constantly strengthens as compared with that of the joint stock banks.

7. — CO-OPERATIVE SOCIETIES FOR PROCURING THE REQUISITES OF PRODUCTION.

In the beginning of the development of Estonian co-operation the requisites of production were supplied by the commercial departments of the agricultural societies. These commercial departments changed into independent co-operative enterprises, which in addition to requisites of production sold victuals and later on iron ware, textiles, and footwear. In such a way there arose in Estonia a series of co-operative shops, of which actually 200 do business in the country and provide the farmers with agricultural requisites as well as with various other articles. These are rural co-operative distributive societies organised, as far as may be, in conformity with the Rochdale principles. The annual turnover of these shops varies greatly, ranging from 15,000 to 2,500,000 crowns. The number of individuals employed varies from one to several hundreds.

These societies, called "consumers' economic societies," have a central society to which they are all affiliated and which supplies them with goods;

85 per cent. of all imported artificial fertilisers pass through the hands of this central society.

The attempt to organise the work of these consumers' societies in the country in accordance with Rochdale principles did not succeed owing to the working conditions of the consumers in the country. One of the most important of the Rochdale principles, for instance, the sale exclusively against cash, could not be introduced, the farmer not being in a position to pay cash for the requisites, such as fertilisers, machines, etc., purchased by him. On account of the fact that buying facilities have been accorded to the farmers by private trade which admitted purchase on credit, the economic and distributive societies of consumers were bound to do the same.

These consumers' societies in the country are moreover engaged in the collection of eggs and of slaughter stock and in arranging the sale of them.

During the crisis through which agriculture passed in 1930 and 1931 some of these societies, especially the smaller ones, were liquidated, as they were unable to adapt themselves to the changed conditions of agriculture.

8. — CO-OPERATIVE INSURANCE COMPANIES.

In Estonia there are 421 insurance companies, five of which have an area of operations embracing the whole country while the other companies operate within the limits of a single commune. The latter are of the nature of agricultural mutual aid institutions in the strict sense.

These companies were established by law in the second half of the last century, the law making it compulsory for the peasants to insure their property, in order to prevent the farmers from suffering heavy losses in the case of fire. In addition to a trifling money compensation the relief granted consisted in supplying wood to the farmer who had suffered the losses and providing workmen to rebuild the house damaged by fire. The compensation was thus given mainly in kind.

In the different parts of the country inhabited by people of small means there still exist mutual insurance companies, which in the case of damage by fire grant relief in the form of wood including transport, and of labour, while the money compensation is of insignificant amount or no money compensation is given at all. This type of insurance company has outlived its utility. It is difficult to apportion the relief fairly and, moreover, the compensation in kind is insufficient to meet building requirements, which are greater than they formerly were.

Therefore a reorganisation of these companies has been undertaken and has already been going on for some time; the aim of this reorganisation is the adoption of a system of compensation entirely in money in the event of losses occurring.

In some cases the loss suffered is estimated and the compensation is afterwards levied from the other members of the company. This system, however, does not result in prompt payment of the compensation, for the recovery of the amount insured takes a considerable time, and therefore there is a growing tend-

ency towards the introduction in local insurance business of the system of paying losses out of the premium received in advance while in the event of considerable losses compensation should be paid by means of re-insuring with another company. In this way the type of the companies operating in single communes, basing their business on money premiums and re-insuring from 30 to 90 per cent of their total risks, is steadily developing. Half of all the existing insurance companies have recourse to re-insurance. As these companies do not employ agents, their expenses are considerably lower than those of the companies working throughout the whole country with the aid of agents.

There are five insurance companies which have extended their operations to the whole country or to several districts. They accept risks from the inhabitants of the country and of the towns. The work of the insurance companies of the communes consists almost exclusively in insuring against fire, and, in some cases, in insuring cattle, while the insurance companies operating over the whole country carry on life insurance, transport insurance, insurance against theft, etc.

The insurance companies doing business throughout the whole country as well as those working within the limits of a commune are affiliated to a central insurance company which acts as an institution for re-insurance. This central insurance company mutually shares the risk undertaken by the four most important insurance companies doing business throughout the whole country. The different risks insured by co-operative insurance companies show that of all the insurance companies the co-operative ones are the most important, for one fifth of the life insurance, half of the fire insurance, one sixth of the transport and accident insurance, and a large part of the cattle insurance as well as of the hail insurance, is carried out by the co-operative insurance companies.

9. — SUMMARY.

The present exposé contains a brief account of co-operation in Estonia, and shows the economic features which caused the organisation of co-operation in that country, as well as the foundations on which co-operation is based. Co-operation forms an organic part of the agriculture of Estonia. The development of agriculture in Estonia has stimulated the organisation of co-operation; the latter however on its part has contributed towards the further development of agriculture, and from time to time has even been the factor which had to bear the burden in connection with the difficulties of agricultural reorganisation.

The intensification of Estonian agriculture in the beginning of the present century has been effected by the aid of the credit and supply societies, while the dairy societies facilitated the transition of Estonian agriculture from the cultivation of cereals to cattle breeding. Yet in the past decade the dairies had to accommodate the butter export, which previously was adapted to the requirements of the Russian market, to those of the market of Western

Europe. Co-operation has had a decisive influence upon the development of new branches of agriculture, as for instance, in recent years, the breeding of bacon pigs. To this end it did not suffice to increase the breeding of pigs, but this had to be placed on a new basis and instead of the fat pigs the breeding of bacon pigs had to be developed in conformity with the requirements of the English market.

The directions given by the co-operative slaughterhouses and the stimulus emanating from them penetrated to the most remote farms and in a short space of time brought about a thorough work of re-organisation. It should be mentioned that the State appeared as a supporter of co-operation only during the past decade, while previously co-operation was entirely supported by its members.

In agricultural co-operation the importance of the societies which look for markets for agricultural products, whether in an unworked or worked state, is steadily rising. Hitherto the development of the societies engaged in the supply of distant markets has been most remarkable. The near future will decide whether the sale of agricultural products on the home market can also be organised on co-operative lines.

MARKETING OF AGRICULTURAL PRODUCE

Proposals for Remedying the Situation of the Wool Growing industry in Australia and the Union of South Africa.

For some time past the position of the wool industry has been a subject of vital concern in Australia, the premier wool producing and exporting country of the world, and in South Africa which stands third of the five leading wool exporting countries. In the remaining three of the five, viz., Argentina, Uruguay and New Zealand, although the pastoral situation undoubtedly gives rise to anxiety, there is a closer inter-organisation of wool and meat production, so that advantage can be taken of market conditions for either product according to circumstances. In Australia the sheep runs, especially the larger runs that still prevail, are frequently organised for wool production only, while in South Africa the export of mutton and lamb has hardly passed beyond the experimental stage.

In consequence in these two countries, possessing, Australia, 107 million and South Africa at a low estimate, 44 million sheep, the main problem is that of the wool grower and his failing fortunes.

Briefly stated, the wool industry reached in 1932 its fourth successive year of selling at a loss. The drop in the high values that marked the post-war period began in 1924-25, and since that time the wool season of 1927-28 has been the only one in which prices at the close of a selling year have been higher than at the opening, and since then they have fallen below cost of production. The discussion of possible remedies follows similar lines in Australia and the Union; in both legislative measures for regulation of markets have been or are

being proposed, while in both the growers are opposed to control and instead demand assistance by means of reduction of governmental charges, or, as it is expressed, of "costs outside the fences."

Before examining the various proposals, it may be useful to indicate the statistical position as regards production of wool, as well as the figures for price levels on the wool markets in recent years.

The obtaining of accurate wool production statistics has been and still remains a matter of some considerable difficulty, and all figures must be regarded as approximate only. The following production figures are taken from a statement on the World Situation in Sheep and Wool prepared by the Division of Statistical and Historical Research of the Bureau of Agricultural Economics of the United States Department of Agriculture (1). It is explained that the figures shown for any year include wool shorn in the spring of the Northern Hemisphere and in the last few months of the same calendar year in the Southern Hemisphere. In fact, the Australian and the South African clips are always returned as from 1 July of a given year to 30 June of the following year, the preliminary estimates having been announced some six months earlier.

According to the figures published in this statement, the total world production of wool for the year 1927, the year preceding the onset of the general economic crisis (excluding Russia and China and including the 1927-28 returns for the Southern Hemisphere), was 3,068 million pounds, while the figure reached for 1930 (1930-31 in the Southern Hemisphere) was 3,260 million pounds, showing an increase of production of some 192 million pounds, or about 6 per cent. Considering only the countries regularly reporting over the period, the figures are respectively 2,677.4 million pounds for 1927 and 2,847.5 million for 1930, showing an increase of 170 million pounds or nearly the same percentage. For most of these countries, however, returns are also shown for 1931, including the 1931-32 preliminary estimates for Australia and South Africa. The total 1931 production is accordingly stated as 2,913,353,000 pounds, but as, subsequently to publication of the statement, it proved that the Australian clip had been over-estimated by five million pounds and the South African by 29 millions, this figure must be subject to correction to this extent. On the other hand this production figure does not include the returns from a number of countries showing returns in previous years ranging from half a million up to 48 million lbs. (Italy), so that the total production for 1931 could not in the absence of these returns be stated with precision. Taking these corrections into account, however, a probable approximation to the total would be 2,930,000,000 lbs, or an increase of 253 million lbs. as compared with the total for 1927.

For the five leading wool exporting countries, all situated in the Southern Hemisphere, it will be useful to show the comparative approximate figures of production for the seasons 1927-28, 1930-31, and 1931-32 adding such preliminary estimates as are available for 1932-33. For purposes of comparison, the figures already given of world production are added below.

(1) *Foreign Crops and Markets*. Vol. 24 Nos. 15 and 16. Washington D. C. 18 and 25 April 1932.

Production of Wool.

	1927-28 lbs.	1930-31 lbs.		1931-32 lbs.	1932-33 (est.) lbs.
Australia	828,630,000	801,200,000	(1)	945,000,000	901,000,000
Argentina	336,000,000	351,000,000		333,000,000	
British S. Africa . . .	273,000,000	305,000,000	(b)	300,000,000	301,000,000
New Zealand	228,960,000	260,000,000		257,000,000	
Uruguay	131,000,000	154,000,000		130,000,000	
Totals for these five countries	1,797,590,000	1,937,200,000		1,971,000,000	
Totals for all countries regularly reporting .	2,677,430,000	2,847,550,000	(c)	2,930,000,000	

N. B. The figures for South Africa are estimates based on exports, and include wool produced in territories adjoining the Union.

(a) Preliminary estimate 950 million lbs.

(b) Preliminary estimate 335 million lbs.

(c) Subject to correction.

It is clear from the above figures that there has been a very considerable increase in the world production of wool in the period under review. A statement was in fact lately made in an Australian periodical of high repute (1) that "world production of wool is now (1932) over two million bales larger than five years ago." Taking the bale at 310 lbs., this would be equivalent to an increase of 620 million lbs. since 1927, or a present world total of over 3,290,000,000 lbs.; this is however a general world estimate, not confined to the returns of countries regularly reporting.

The major part of this world increase, whatever may be its exact figure, would seem to be attributable to the larger Australian clip, which for 1931-32 shows an advance of 116,370,000 lbs over that of 1927-28, or approximately half the world increase. Over this period the South African increase was 33 million and the New Zealand 29 million lbs; on the other hand the South American exporting countries show small decreases. Outside the five leading exporting countries the only two areas producing over 100 million lbs. annually, as shown in the statement of the Bureau of Agricultural Economics, are the United States, and the United Kingdom taken together with the Irish Free State for this purpose. The United States production increased over the period from 289,910,000 lbs. in 1927 to 369,320,000 lbs. in 1931, or an increase of nearly 80 million lbs.; the British and Irish production rose during the same years from 118,540,000 lbs. to 122,000,000 lbs., or by about 3.5 million, the two preceding years having been marked by a slight decline in production.

It will be sufficiently clear from these figures that this period of general crisis has been marked by a considerably increased world wool production to which the largest contributions have been made by Australia and the United

(1) *The Pastoral Review*. Vol. XLIII, No. 2, Melbourne, February 1933, leading article, p. 131.

States. Even under normal conditions, it seems improbable that consumption would have expanded sufficiently to keep prices up to the level prevailing before 1928. With a reduced consumer demand due in part to lowered purchasing power and the fall in general commodity prices the decline in wool prices would appear to have been inevitable. The following statement of prices of scoured wool ruling on the London market will serve to show the extent of this decline over the period under review. The average prices of three different classes of wool are shown for the successive periods of six months from July 1927 to June 1932.

Average Prices of Scoured Wool at London Wool Sales July 1927 to June 1932
(in pence per lb.) (1)

Half-yearly periods	Merino pieces	Crossbreds Fine fleeces	Crossbreds Medium fleeces
	d.	d.	d.
1927 July-December	49	43	25 ² / ₃
1928 January-May	49	44 ² / ₃	30 ¹ / ₂
1928 July-December	46 ¹ / ₃	43 ¹ / ₂	28 ¹ / ₂
1929 January-May	42 ² / ₃	39	25
1929 July-December	33	29	21
1930 January-May	24	22 ¹ / ₃	16
1930 July-December	22 ¹ / ₃	18	13
1931 January-May	19	16 ¹ / ₃	10 ² / ₃
1931 July-December	18 ¹ / ₂	18	9 ² / ₃
1932 January-June (8 sales)	16 ¹ / ₂	18	8 ¹ / ₂

The London wool sales are held in series of three weeks at a time, there being usually six series in any one year. In 1932 seven series were held. No sales are held in August and except in 1932 none were held in June. The above averages accordingly for the most part represent the prices ruling over three series of sales. The low average for Merino pieces, which in June 1932 fell even as low as 14 ¹/₂ d., seems to be an instance of inadequacy of the information conveyed by quoting the "average" price, which is of course merely a figure obtained by dividing the total proceeds of sales of a particular type of wool by the weight of all the different qualities and grades of that type, the lower qualities naturally accounting for most of the weight. On the other hand the practice of quoting "top" prices applying only to relatively quite small lots of superfine wool is open to the objection that it gives an altogether exaggerated idea of market values.

With the opening of the 1932-33 season in September, prices of Merino wools became somewhat firmer, and this improvement has been on the whole well maintained, and extended to other good qualities of wool. It may be noted that the only countries producing Merino wools in any large quantities

(1) Statement reproduced from the International Yearbook of Agricultural Statistics 1931-1932. Rome 1932. Page 620.

are Australia, South Africa, and the United States. In this last the production of Merino wool is not enough to meet the home consumption. Accordingly Australia and the Union of South Africa are the only exporters of Merino wool. The finer spinning qualities, or "counts", of Merino wool are produced with high yields in Australia only, since South Africa has admittedly neither the climate nor the pasture to produce the better qualities except at low yields from the grease. Moreover the South African clips are often too small to allow of classing being done strictly on spinning quality. The top prices obtained for Australian wool are, accordingly, not realisable for Union wools, but prices on a clean scoured basis for similar grades or types of wool are practically the same in both countries (1), the London sale prices being, of course, higher than prices on the markets in the country of origin. It may be added that there has been during the last few years a tendency to eliminate the very inferior wools from the markets.

The position in regard to wool prices is well shown also by a comparison, based on the figures issued by the Australian National Council of Wool Selling Brokers, between the average prices per lb. realised in the grease during the first half of each Australian wool sales season from 1928 to 1932. These averages are as follows :

	Average price per lb. taking all grades
1928 July to December	17.5 l.
1929 "	15 5d
1930 "	8.3d
1931 "	8.75d.
1932 "	8.56d.

It will be noted that as between the three latter periods the differences are very small, and as these figures represent half-yearly averages of monthly variations of comparatively small range, the inference is not unreasonable that a basis of value has been reached which can be accepted as a standard (2). The cost of production of wool is well above any such figure, and is reckoned at from 1s. to 14d. per lb., including interest charges on land. If such a basis of value has indeed been reached, it will become necessary to consider whether any reduction of costs is practicable, or whether the situation can be improved by the gradual elimination from the market of wools of very inferior grades or by other methods of market control. Even if the basis should prove eventually to be higher, as may perhaps be indicated by recent trends of market prices, cost reduction and elimination of quite inferior grades of wool from the market could hardly be otherwise than advantageous to the industry.

(1) Previous to the abandonment of the gold standard by the Union Government in January 1933, the prices on the South African local markets naturally ruled lower than the Australian.

(2) See *The Pastoral Review*, Vol. XLIII, No. 1. Melbourne, January 1933, p. 59.

A brief review may now be given of the measures proposed directly or indirectly by the Union and the Commonwealth Governments respectively, or demanded by the growers in either country, for the remedying of the present disastrous situation.

It is a fact of some significance that, although the wool export, alike in Australia and in South Africa, is of premier importance to the national income – the wool export value in each case being even now at least one third of the total export values exclusive of gold – there has been up to the present no State regulation of the industry of any kind in Australia, and in the Union of South Africa it was only in 1930 that a semi-official Advisory Wool Council came into existence as a first step towards control or regulation. While in both countries regulation of a number of leading commodities has been established, the whole conduct of the wool industry has preserved, especially in Australia, its traditional and independent character (1).

In 1929 the wool export from Union ports (which includes wool from adjoining territories) reached the largest figure so far on record of 286,878,000 lbs., but owing to the fall in prices the value realised was less by £2,330,000 (£14,521,000 as compared with £16,851,000) than in the previous year. Such a fall in growers' return naturally gave rise to anxiety; moreover it had for some time been recognised that South African wool, although of high quality, tended to suffer in competition with Australian owing to a certain want of uniformity in classing, and the introduction of better classing methods was being urged. A representative Conference of wool growers meeting at Bloemfontein in September 1929 decided to request the Government to institute an export levy on wool for the benefit of the industry. Accordingly, a levy of 1s. per bale, involving a system of inspection at the ports, was instituted as from 1 January 1930, the proceeds to be devoted to research work, organisation of growers, propaganda and other activities for advancement of the industry. The Conference had also recommended, as the best means of ensuring satisfactory administration of the levy fund, the appointment of a Wool Council, advising to the Minister of Agriculture. This body was formed early in the year with the Secretary of Agriculture as Chairman, the members being the president of the National Wool Growers' Association, representatives of the Agricultural Unions of the four provinces and two others representing the unorganised growers of the Union, an official of the Department of Agriculture acting as secretary. The duties of the Council were defined as those of advising on the application of the levy fund and generally on the problems of the industry.

The first meeting of the Wool Council was held in April 1930 and a committee was appointed to investigate and advise in respect of conditions of marketing

(1) Details of the methods of wool marketing in Australia and South Africa will be found in an article by A. FROBISHER entitled *The World's Wool Markets* appearing in the *International Review of Agriculture*, Part. II. Nos. 10 and 11, 1929.

in the Union. The Committee pronounced strongly in favour of the system of auction sales as already in use at the four ports rather than sales by private treaty, recommending that all wool be offered for sale by public auction at least once, and that the Wool Council should issue "an authoritative recommendation to wool producers to support sales by public auction, by instructing their broker to sell their wool by that system." Other recommendations made by the Committee dealt with the keeping of records of wool offered for sale and of sale transactions, whether by public auction or private treaty, with the desirability of extension of the selling season and with registration of brokers.

It is in fact usually considered in countries where a system of public auction sales exists that sales of wool by private treaty without offering for auction, or "country sales," tend to injure the demand. The practice also militates against the adoption of improved methods of classing and packing, which are essential for wool offered for sale by public auction. Moreover, the grower who sells privately without first offering for auction may well find that he might have realised a considerably higher price at auction. On the other hand, if offered, properly graded, and then withdrawn on account of low bidding, a better price may subsequently be obtained by private negotiation. Such withdrawal, under reserve, was recognised by the Committee as entirely admissible.

The continued fall in wool prices during the first half of the 1930-31 season led to a proposal, initiated by the Durban brokers, to suspend sales and regulate offerings. At a conference held at Port Elizabeth early in December a short suspension was agreed on to be followed by rationing of sales beginning from 5 January 1931 at the four ports with limits as follows: Port Elizabeth, East London and Durban, 7,000 bales per week; Cape Town, 1,500 bales per week. An endeavour was also made to impose a scale of minimum reserves, under which wool should not be sold. The rise of prices in February and March 1931 made the rationing of sales unsatisfactory to those concerned, and the scheme was withdrawn, although against the opinion of the Wool Council. On representations made by the Council, however, the rationing machinery was kept available so that in the event of any setback in prices it could be made to function again without delay.

Closer organisation among wool growers was also among the objectives of the Wool Council. At the time of its appointment in 1930, there were two leading co-operative wool producers' associations in the Union, the National Wool Growers' Association, known as the N. W. G. A. and originally confined to the Orange Free State, and the Farmers' Co-operative Wool and Produce Union, known as the F. C. U., a flourishing organisation with branches at Port Elizabeth, Durban and Cape Town, as well as a large warehouse at East London. There were also in existence a number of smaller co-operative associations, and the proposal urged by the Wool Council was the incorporation of these in the N. W. G. A. Actually it proved that this latter body had to undergo re-organisation and readjustment of its monetary affairs, and it was not till April 1932 that it was able to make a new start, with an additional 2,000 members, and a grant of £4,000 from the Wool Council. This grant is largely utilised for

provision of instruction in wool classing, etc. In fact both this Association and the Farmers' Co-operative Wool Union endeavour to educate wool farmers in the business of wool production and its proper classing and sorting. The F. C. U. is definitely a co-operative selling organisation and handles some 50 per cent, of the Union clip, charging rates lower than the ordinary brokers' charges. There is undoubtedly a strong link between the Wool Council and the N. W. G. A., while the F. C. U. stands apart and has lately assumed an attitude of criticism.

The Wool Council established in 1931 a Wool Information Bureau and at the British Empire Wool Conference held in Melbourne in June 1931 (1), the supply of information by weekly cable from the Australian Woolgrowers Council to the South African Wool Council was definitely agreed. In fact recognition of the advantages to be gained by consultation and exchange of information in the common interests of the wool countries is among the most valuable aspects of the work of the Wool Council.

On the abandonment of the gold standard by Great Britain in October 1931, and the subsequent decision of the Union Government to retain the gold basis, exporters of any South African commodities to the United Kingdom or to other countries also "off gold" found themselves obliged to take prices which in South African currency stood at disastrous figures. The Government found itself compelled to come to the assistance of producers by the issue in December 1931 of regulations for the payment of subsidies on most of the Union exports. On wool exported or sold for export, the rate ultimately fixed for the subsidy payment was 25 per cent. on the proceeds of the first sale, the benefit of the subsidy applying to any sales made on or after 1 July 1931. As a further measure of relief the Wool Council suspended the wool levy for a year as from 1 February 1932. It may here be added that although the basis of the wool subsidy payments was modified subsequently to the abandonment of the gold standard by the Union Government during the first week of 1933, the wool exporter is still receiving a subsidy of 1*d.* per lb.

It has already been stated that the formation of the Wool Council in 1930 had been regarded as the first step towards compulsory regulation of the industry. It was however not until September 1932 that any formal move was taken towards the introduction of legislation for marketing control, although on various occasions discussions had been held between the representatives of the Wool Council and those of the selling trade. The wool brokers in fact constitute a very important group in South Africa, and it is a fact of some significance that whereas in Australia 29 brokers handle three million bales of wool, in South Africa the export of about one million bales employs 67 brokers. The Wool Council had undertaken not to prosecute a public campaign among wool growers without first consulting the brokers, and expressed anxiety to secure the collaboration of the wool selling trade. However at a meeting held in August

(1) The Report of this Conference is summarised in the *Monthly Bulletin of Agricultural Economics and Sociology*, November 1931, pp. 361-363.

1932, the delegates of the selling trade finally declared themselves opposed to legislative measures, and accordingly the Wool Council decided in September to submit its proposals to the wool growers with a view to obtaining some assurance of their support before approaching the Government to ask for legislation.

The proposals of the draft Bill included: the statutory establishment of the Wool Council; the establishment and registration of the wool brokers associations; the setting up of a National Wool Committee to consist of the Chairman and members of the Wool Council together with five representatives of the brokers, such Committee to have the initiative in any matter affecting the control of the wool clip as well as of wool marketing. The National Wool Committee, or strictly the Governor-General, acting on the advice of the Committee, may thus make regulations prescribing: the quantity and description of wool which may be offered at any place or places at any time or during any period as determined; the method or methods under which the sale of wool in the Union shall be conducted; the conditions regulating the operations of wool brokers; the nature and form of statistical data and information regarding stocks, market prices, etc., which it shall be compulsory for sellers and buyers of wool to supply for publication or for use in the general interests of the industry. As regards these proposed powers of the National Committee, the Council indicated that it was prepared to consider any reasonable modifications. The publication of these proposals elicited in October a statement of views from the South African Wool and Mohair Brokers Association, the principal brokers' organisation. The purport of this statement was to urge the wool grower to support the formation of a National Committee consisting of an equal number (eight of each) of farmers and brokers, and to require a two-thirds majority of this body for recommendation of any legislation. On the other hand the executive of the National Wool Growers' Association in September had accepted the draft measure unanimously and urged its branches to interest themselves actively in the promotion of the Bill, and the South African Agricultural Union at its annual meeting at end of October followed suit by recommending the Government to introduce legislation on the lines proposed by the Wool Council. The brokers however issued a further circular which appears to have influenced opinion among wool producers, and a very considerable divergence of view was voiced throughout the Union.

In view of the difficulty of assessing the opinion of wool growers, from the resolutions passed at meetings of very varying size in different parts of the country, and attended in many cases by persons who were not wool growers, the Wool Council decided at their meeting in February 1933 to refer the matter first to the congresses of the four provincial wool growers' associations, and then to the National Wool Growers' Association, the executive of which had already, in September 1932, accepted the Wool Council's proposals. The resolutions passed at these congresses are to be taken into consideration before submitting the measure to the Minister of Agriculture. As the Wool Council has so far no statutory powers and is a purely advisory body, this was generally felt to be the right procedure.

The first of the congresses (1), that of the Cape Province association was to be held on April 12, and as the opposition appeared from the separate meetings to be particularly strong in this province, the result of this meeting is considered likely to be critical. On the other hand the Transvaal and Orange Free State growers appear on the whole to be in favour of the measure. It is the contention of the brokers that the views of the wool growers have been already sufficiently ascertained from the meetings that have been held and that it is clear that the majority are against the proposals.

It has been the generally accepted view that the highly organised and completely self-governed Australian system of marketing wool through brokers on central markets is on the whole satisfactory to growers and adequately protects their interests. The organisation is undoubtedly remarkable; the handling of some three million or more bales of wool during the season at the different ports, the magnificent stores and show floors where the admirably prepared wool is handled and displayed, the careful attention and expert services rendered to clients, and finally the attendance of buyers from Great Britain, France, Germany Japan and other countries of the Northern Hemisphere, all create an impression which is striking if not unique among the world markets. There have however recently been indications that it is felt that the overhead charges of such a marketing system may be too high, and may possibly constitute one of the factors swelling growers' costs, and adding to the difficulties of the situation caused by the fall in prices.

It was the pressure of these difficulties taken as a whole that led in August 1932 to the request made by the Chairman of the Australian Woolgrowers' Council for the appointment of a Wool Inquiry Committee which was followed by a decision of the Federal Cabinet to hold such an enquiry. A representative Committee was accordingly appointed.

The report of this Federal Wool Inquiry Committee was published late in November of the same year. Its findings in relation to costs, including those incurred after the wool leaves the stations, mainly restate the facts and arguments that have been repeatedly adduced by growers. Briefly the Inquiry showed that average typical costs of representative growers under present good season conditions (1) may be reckoned as follows per lb. of wool:

	d.
Working expenses, excluding all interest	6 ³ / ₄ per lb.
Annual maintenance and average drought expenses	1 ³ / ₄ " "
Cost at sheep stations, excluding all interest	8 ¹ / ₂ " "
Rail freight and brokers' charges	1 " "
Average cost when sold	9 ¹ / ₂ " "

(1) At this meeting a recommendation was passed that, in view of the opposition of a large percentage of growers, the Bill should be postponed for one year to allow of further discussion. A similar resolution was passed by the Natal Wool Growers Congress.

(2) The evidence was taken from all the States of the Commonwealth and covers 668 properties carrying 8,000,000 sheep.

Interest actually paid, and, attributable to wool only, averages $1 \frac{1}{4} d.$ per lb. of wool. Such payments, however, are made at the expense of maintenance (upkeep, repairs etc.), and in other cases interest is not being paid. Interest calculated at 5 per cent., on the value of land required to run (i.e., pasture), a sheep, viz., £3 per acre, is $4 \frac{1}{2} d.$ per lb. of wool. At this figure total wool costs must average not less than $14 d.$ per lb. of wool at the point of sale *allowing nothing for management* or for the special risks of the industry.

As regards "working costs" it was shown that reduction, amounting to 25 and even 33 per cent., had been effected in shearers' and station hands' wages. The report urges that the lowest possible interest rates on borrowed capital should be charged to the wool industry and that the Federal land tax on wool producing properties (1) should be substantially reduced if not abolished or at least suspended. In this connection it should be noted that the Committee is convinced that neither over-capitalisation nor high land values have had any material effect in causing the crisis in the industry. As regards other costs "outside fences", a strong recommendation is made for reduction of rail freights. The railways are State-owned, and the Committee recommend that the example of Western Australia in reducing wool rates by 30 per cent., should be followed. Reductions are also recommended in handling and selling charges.

The crucial question of marketing control is approached by the Committee with the following preface: "The present system of directing the sale of the clip is substantially sound, but in view of the Committee's conclusion that the present price of wool does not meet the cost of production nor enable the growers to maintain their properties, meet interest charges or obtain any profit from their operations, it is considered that the present critical position warrants the establishment of special executive machinery for speedy action."

The recommendation accordingly follows that:

(a) a Commonwealth Wool Executive be constituted by the Australian Woolgrowers' Council (after a new election of its personnel), this Wool Executive to include one growers' representative from each State and the Chairman of the Council, together with two representatives of the National Council of Wool-selling Brokers;

(b) the Commonwealth Government take to itself power to prohibit the export of wool, except on conditions of minimum reserve price or otherwise as may be prescribed, provided that this power shall be exercised only at the request of the Commonwealth Wool Executive.

It will be noted that in comparing the above recommendations with the proposals put forward by the Wool Council of South Africa, in the first place the South African allocation of seats for the brokers is much larger, but on the other hand the proposed South African National Wool Committee would have

(1) The effect of the Federal Land tax, according to evidence given in February 1933 before the Royal Commission on Taxation, has been to impose a charge ranging from 10s. 3d. per bale of wool produced on a 3000 sheep property to £4. 4s. a bale on a 50 000 sheep property. The average price of wool per bale for the last three years has been about £11. In November last a reduction in the Federal Land Tax was announced amounting to one third of existing rates.

greater power to interfere with the operations of brokers. In the second place, the Australian proposal specifically includes the assumption by the Government of power to prohibit the export of wool sold under conditions not approved by the advisory executive, whereas the Union scheme aims merely at regulating the times and places of sales, the quantities and descriptions of wool to be offered, methods and conditions of sales, etc.

It is of interest that the Australian Wool Enquiry Committee also gave consideration to the alternatives of a loan to wool growers until prices recover and of a bounty in some form, but rejected both.

It is probably to be regarded as an indication of the highly conservative attitude of the industry in Australia, that whereas in South Africa, as has been seen, the proposal for a National Wool Committee has met with considerable, although by no means unanimous, support from the growers, in Australia the councils of the two leading associations of pastoralists, the Graziers' Federal Council and the Australian Woolgrowers' Council, led the way in January 1933 by passing resolutions opposing the formation of a wool executive committee as proposed in the report of the Inquiry Committee. These important bodies also expressed definite opposition to any assumption of powers by the Commonwealth Government to prohibit, even if only on the recommendation of the proposed wool executive, the export of wool below a minimum reserve price. The Chairman of the Australian Woolgrowers' Council further stated that the original idea in calling for an inquiry was that a small executive should be appointed, representing but not superseding both growers and brokers.

In both countries the brokers, or the selling trade, present an absolutely united front in opposition to the proposals.

In spite of the undoubted strength of this opposition to measures of market control or regulation, there is among the more far-sighted of those engaged in the industry a distinct tendency to recognise that the interests of Australian and South African wool growers are in many respects identical, and that concerted action might be advisedly taken for regulation of sales, especially of Merino wool, for which product the two countries together hold a veritable world monopoly.

C. H.

Measures taken for the Improvement of the Live stock and Meat Industry in Australia and in the Union of South Africa.

The conditions of the meat industry in South Africa have certain features in common with those of the more fully developed industry in Australia; and in both countries there is at present much discussion of proposals for a better organisation of the meat export trade. A comparative statement of some of the problems in regard to the industry in these two countries may accordingly not be out of place.

Australia and the Union of South Africa are alike in having tracts of territory, very large relatively to the total inhabitable area in each case, suitable for live stock farming, and moreover from the prevailing semi-arid conditions suitable only for this type of farming. It is therefore in no way surprising that these

countries should become exporters of live stock products. In the world trade in wool, Australia and South Africa are of premier importance, and both hold an important position in the export of hides and skins. The development of the overseas trade in meat encountered naturally far more difficult problems of transport, and at the present time it cannot be said even for Australia that a leading position is occupied, while in South Africa a beginning only may so far be noted, together with an extraordinary determination alike on the part of the Government and of the interests concerned to build up a successful export trade.

The figures of the world trade in meat (excluding pig products) during the years 1930 to 1932, showing Australia and South Africa in comparison with the South American countries and New Zealand in this respect, will serve to illustrate the position.

As the New Zealand beef export figures are comparatively very small, and in South Africa lamb and mutton exports are only just beginning to be developed, returns relating to these exports are not included in the following tables.

It will be convenient to show the exports directed to the United Kingdom separately from those directed elsewhere. The returns are shown in each case for the calendar year, except for Australia where the returns are for the twelvemonths ending 30 June of the corresponding year.

Exports of Beef for years 1930 to 1932 (quarters of beef).

	South American countries (<i>vi.</i> Argentina mainly but incl Uruguay and Brazil)		Australia		South Africa including supplies from S Rhodesia, S W Africa and other ad- joining territories export- ed through Union ports, to United Kingdom and to Italy (1)
	To U. K.	To other ports	To U. K.	To other ports	
1930	6,132,879	1,423,000	539,566	586,758	257,025
1931	5,922,456	882,000	656,485	420,297	167,100
1932	5,416,852	550,000	750,122	289,949	115,300 (2)

N. B. — Quarters of beef are graded according to whether the weight is over or under 150 lbs.

Exports of Mutton 1930-32 (carcasses).

	South American countries (incl Patagonia)		Australia		New Zealand	
	To U. K.	To other ports	To U. K.	To other ports	To U. K.	To other ports
1930	1,909,104	247,000	632,514	147,460	2,557,326	3,987
1931	1,275,136	257,000	719,341	100,207	2,276,084	negligible
1932	1,080,341	96,000	1,168,700	108,955	2,836,754	„

(1) Under the Italian Army Meat Contract.

(2) The diminution in the S. African export figures for 1931 and 1932 is largely due to the prevalence during a part of the period of foot and mouth disease in some areas of S. Rhodesia, with consequent embargo on movement of slaughter cattle and export of meat.

Exports of Lamb 1930-32 (carcases)

	South American countries (incl. Patagonia)		Australia		New Zealand	
	To U K	To other ports	To U K.	To other ports	To U K	To other ports
1930	4,945,920	nil	1,904,937	148,104	7,146,146	10,123
1931	5,377,625	„	2,051,813	53,888	8,192,529	823
1932	4,405,882	„	3,203,654	50,921	8,455,029	560

For the purposes of this note, exports of canned beef, meat extracts, etc., are not taken into consideration, although the great importance of these products for the economy of the meat trade is recognised to the full in the South American countries, and to a less extent in Australia.

It may be added that the Australian beef supplies come mainly from Queensland and the Northern Territory. New South Wales and Victoria account for more than two-thirds of the lamb and mutton supplies to the United Kingdom from Australia.

From the above tables it will be seen that Australia is greatly out-distanced in beef exports by the South American countries, and that, although the Australian mutton exports of 1932 show a slight excess over those of South America, the New Zealand mutton export is more than double of either. The Australian lamb exports begin to approach the South American figure, but are again far outstripped by the enormous lamb export from New Zealand, where climatic conditions are much more favourable for fat lamb production. The South African figures are at present relatively insignificant, and the question is almost entirely one of possible future developments, in view of which organisation is being attempted.

In establishing any comparisons, it has to be kept in mind that the South American shipments include a large proportion of chilled meat, while those from New Zealand, Australia and South Africa are essentially of frozen meat, the export of chilled meat from these countries being so far scarcely more than experimental. Meat which has been chilled, *i. e.*, subjected under special conditions to a low temperature gradually reduced over a period of 48 hours or so to just below the freezing point of water, tends to preserve the appearance and flavour of fresh meat to a degree not attainable with the process of simple freezing, and hence is in greater demand and commands higher prices. It is this superiority in the product as well as the regularity and size of shipments that gives the lead on the international markets to the South American exporters of beef. The chilling process involves a much improved and scientific technique and also a higher expenditure on plant, and it is only in recent years that its introduction into Australia and South Africa has been attempted, as in neither country is the capital invested in the industry large as compared with that at the disposal of the South American "packing" firms or companies. It is now recognised that the

development of the export of chilled meat is of great importance to both countries. So far greater experimental success has been achieved in South Africa, and small regular shipments of chilled meat from certain ports are now contemplated. From Australia the length of the overseas journey is undoubtedly a severe test, and the stage of experimental shipments is hardly yet successfully passed.

Although this is not the place for any full statement or discussion of the meat agreements reached by the Imperial Economic Conference at Ottawa in 1932, some reference to the effect of the meat agreement in restricting Australian meat exports during 1933 cannot be avoided, and may serve to throw light upon the general problem of regulation of shipments. Such regulation is part of the programme of the proposed Australian Meat Export Council of which an account will be given later.

The outstanding fact influencing the formulation of the Ottawa meat agreement was that *production of meat has overtaken the effective demand*, partly in consequence of changes in dietary, partly for other reasons connected with the economic crisis. There was also the fact that largely owing to the closing of European markets, Great Britain had become the only remaining worth while market for imported meat. As a result the British market had become overloaded, there was a very large accumulation of frozen meat in cold store in Great Britain, and in consequence an almost unprecedentedly low level of prices.

The remedy proposed by the Ottawa agreement to the situation was the restriction not only of foreign (*i. e.*, South American) meat shipments but also of Dominion meat shipments during the calendar year 1933.

As regards Australia the Commonwealth Government undertook by the terms of the settlement :

(1) to use its best endeavours to limit the export of frozen beef to the United Kingdom during 1933 to an amount exceeding the exports during the season 1931-32 by not more than 10 per cent. ;

(2) that the export of mutton and lamb to the United Kingdom during 1933 will not exceed the quantity imported from Australia by the United Kingdom during the peak year 1931-32.

The limitation of " foreign " or South American supplies included a limitation of chilled beef imports into the United Kingdom to the total volume of the year ended 30 June 1932, the lowest level since 1925, and a progressive restriction over a period of 18 months of imports of foreign frozen beef, mutton and lamb.

It was originally intended that all restrictions should begin from 1 January 1933, but in view of the serious accumulation of meat in cold store and afloat it was later felt necessary to limit also shipments in November and December 1932, alike foreign and Dominion. The result was a rise of wholesale meat prices in Great Britain, followed at once by an advance in Australia of fat stock values, and consequently an extension up to nearly the end of December of lamb slaughtering which usually decline after October. Since the Australian mutton and lamb exports had been limited by agreement in November and December to 90 per cent. of the shipments for the corresponding months of 1931, the result was an exceptionally heavy carry forward of lamb and mutton into 1933. In fact the stocks of lamb and mutton in cold store in Australia, including meat loaded

on vessels not yet sailed on 31 December, amounted to some 1 170,000 carcasses. Now by agreement the exports of lamb and mutton to the United Kingdom for 1933 are not to exceed the total for the season 1931-32, *i. e.*, 4,372,000 carcasses, of which this heavy carry over alone represents nearly 25 per cent. On the other hand Australian exporters have to face the fact that the larger proportion of the year's shipments naturally fall in the months from August to December, *i. e.*, following on the new season, and it is essential to the industry to protect the interests of graziers already breeding lambs for the export of those months. Accordingly the Federal Government, after consultation with meat exporters and pastoral interests, took the immediate step in January of issuing instructions that clearances of mutton and lamb to the United Kingdom during the three months ending 31 March should not exceed 900,000 carcasses, and followed this before the end of March by a similar restriction for the second quarter of the year. Deducting this export of 1,800,000 carcasses from the year's quota of 4,372,000, a total of 2,572,000 is thus left which may not be exceeded during the second six months of the year. This is actually some 200,000 carcasses less than the quantity shipped to the United Kingdom between 1 July and 31 December 1932 a quantity that would have been larger still, if it had not been for the November-December restrictions imposed. It seems not impossible that the final result will be another heavy carry-over of mutton and lamb into 1934.

It will be seen that there is thus a strict programme of regulation of meat shipments, so far as the United Kingdom is concerned, in force in Australia for 1933. As regards the actual machinery, allocations of the various proportions of the whole quota as well as of the three-monthly quantities have been made for each State, New South Wales and Victoria leading (38 and 50 per cent. respectively). These State allocations are again divided between individual shippers or factories on a defined basis.

The value of the meat export of Australia is smaller than the values of the other leading export commodities, *viz.* wool, wheat and dairy produce, these three taken together in fact accounting for some 70 per cent. of the Australian export values. On the other hand, as with the dairy produce, a large proportion of the meat grown is consumed within the country. The per capita consumption of meat in Australia is decidedly in excess of that in Great Britain or in the United States, and has been reckoned at a little over 200 lbs. per head, of which 17 lbs. only represents pork products. Approximately the consumption of beef, mutton and lamb may be regarded as from four to five times as much as the export surplus, or in other words from 80 to 84 per cent. of the total annual production of meat is consumed by the population of Australia. The importance of the meat industry for the country would thus appear to be based as much on the internal demand as on the export trade. It is however the development and prosperity of the export trade that form the main object of the proposals for organisation.

The subject is not a new one in Australia. From 1922 to 1926 an Australian Meat Council was in existence, with the functions of general promotion of the industry especially in respect to the overseas trade, representation of the interests of graziers to shipping companies, etc. It was definitely a producers' organisation

and was financed by advances from the Federal Government which were to be repaid out the proceeds of levies imposed by legislation on stockowners in the various States. This legislation was passed by Victoria, South and Western Australia, and in New South Wales and Queensland was made conditional on a periodical poll of graziers which in both States in 1926 gave unfavourable results. The Council further alienated the graziers by proposals for the formation of a meat export central board. It was accordingly wound up in July 1926 and although in the same year proposals were brought forward for the establishment, as advisory bodies only, of an Australian Meat Board as well as of State Meat Boards, there proved to be no support for the formation of a central body.

From 1930 onwards the need for closer organisation was increasingly realised, although the initiation of any effective measures with this object seems to have been impeded especially in New South Wales by some considerable conflict of interests between graziers, the slaughtering industry and the meat exporters. The first move towards concerted action was due to the initiative of the Graziers' Federal Council, which early in 1932 called on the Federal Government to summon a Conference to consider the possibility of organising the industry in Australia. This Conference met in Melbourne at the end of June and was attended by delegates from the State Graziers' Associations, the Queensland Cattle Growers' Association, the Meat Exporters' Associations, the South Australian Meat Board and the New South Wales and Queensland Meat Industry Boards. The main subject under discussion was the establishment of a Federal Meat Control Board, such as exists in New Zealand; the functions contemplated being those of encouraging improved grading and better methods of transport, handling and treatment, and of conducting propaganda for increased and improved production. No conclusion was then reached other than the appointment of State Committees to consider further the advisability of establishing such a Board, with power to report to the Federal Government. In the meantime the outcome of the Ottawa Conference, although not so definitely advantageous to the Australian meat export trade as had been anticipated in some quarters, at least involved a distinct assertion of the position of Australia in the United Kingdom trade, and is undoubtedly proving a stimulus to improved organisation and orderly marketing. In January 1933 the Federal Minister of Commerce summoned a further Conference to which the producers were invited in the proportion of 11 to 5 meat exporters, as follows: New South Wales, three growers and two proprietary meat exporters; Victoria, three growers and two exporters, one proprietary and one co-operative; Queensland, two growers and one proprietary meat exporter; South Australia and Western Australia, each two growers; Northern Territory one grower. The representation of the exporters was subsequently slightly increased.

It should be noted that, although all parties concerned have become agreed on the need for organisation of the meat export trade, there has been all along a decided opposition, mainly on the side of the exporters but also from a section of the graziers, to the idea of establishing a body with actual powers of control of overseas marketing or even of regulation of shipments. This opposition had been evident at the Conference of July 1932, and was among the reasons

that led to the referring back of the proposals to State Committees. The same marked divergence of view was apparent at the Conference of January 1933. The resolution was brought forward by the President of the Graziers' Association of New South Wales, who had represented the Australian graziers at the Ottawa Conference, and may be quoted in full:

" That, as the present wholesale prices of meat are at a level which has created a grave depression in the live stock industry, and which if continued is likely to bring about a serious decline in production and serious injury to the meat trade, it is essential that steps be taken for a improved price situation and a more orderly marketing of supplies, to which end it is imperative in the interests of the meat trade as a whole that an Australian Meat Export Council be created, having, inter alia, the following powers :—

- (a) to fix and enforce standards for the grading of meat intended for export;
- (b) to regulate the shipping of meat;
- (c) to popularise Australian meat products overseas by advertising or other means.
- (d) to create agencies overseas and in Australian States;
- (e) to assist in the development of canning or processing of meat;
- (f) to borrow money and to make advances;
- (g) to impose a levy on all meat exported from Australia, not exceeding maximum charges to be prescribed by regulation;
- (h) to do all things necessary for building up and expanding the export of meat and meat products. "

As regards the grading question, the proposer of the motion had recently reported to his Association the result of some observations made in England, showing that Australian export trade was suffering from the multiplication of brands, the faulty grading of lambs, and in particular the shipping of " summer " lambs, or lambs produced late in the season and of inferior quality owing to the heat and absence of green feed.

The powers given are undoubtedly wide, and those relating to regulation of shipments were in particular certain to be challenged in some quarters; and in fact objections have already been raised.

It is significant of the difference of opinion prevailing that a clause giving the Council power also " to supervise and lay down regulations for the sale and marketing of meat overseas " was included in the original draft, but was removed, owing to strong representations made by some among the producers' representatives, before submission to the meeting. By inadvertence, however, the clause appeared in the reports of the proceedings in the daily press, so that an explanatory statement became necessary.

On the suggestion of the Chief Executive Officer of the Australian Council for Scientific and Industrial Research, the resolution was amended to include power to deal with production and preservation from the point of view of scientific research. In addition, after a long discussion the proposer agreed to insert the words " entirely free from political or Government control " after the words " Australian Meat Export Council. " The resolution in this form was agreed to by 19 votes to 6, the dissentients representing proprietary meat exporters.

It may be noted that one of the difficulties in the way of organisation has been a want of agreement on the means of financing any proposed body. The general principle of a levy had however been adopted by the General Council of the Graziers' Association of New South Wales at a meeting towards the end of 1932, a decision which probably tended to influence general opinion on the matter.

Voluntary organisation of the industry having been thus agreed upon, it remained to draw up the constitution of the proposed Council. Briefly the constitution was approved by the delegates on the following lines.

In the first place a poll of producers is to be taken to determine whether the establishment of a council is desirable; the number of stock entitling a producer to a vote being 300 sheep, 100 cattle or 100 pigs. (The proposal was at first for 500 sheep, but the representative of the Farmers' and Settlers' Association of New South Wales was influential in effecting reduction in the interests of the small producer).

The Australian Meat Export Council is to be a statutory body consisting of 16 members as follows: one nominee of the Federal Government; ten nominees of producers, *viz.* two from each of the States of Queensland, New South Wales and Victoria, and one from each of the States of South Australia, Western Australia, Tasmania and one from Northern Australia; five nominees of exporters, *viz.* one member from each of the three principal meat-exporting States as above, one to represent the remaining States, and one to represent co-operative meat-exporting companies. Naturally the nomination of members will take place through the various accredited State organisations of primary producers or of meat exporters respectively. The Chairman is to be an elected producers' representative and to have a casting vote in addition to his own vote. Members are to hold office for two years and to be eligible for re-election. The maximum rates for levies were also fixed provisionally at one penny per quarter of frozen or chilled beef, and one penny per carcase of mutton, lamb, veal or pork.

It will be evident that in Australia the producers are now definitely asserting their interests in respect of the meat industry, as well as their prior claim to representation on the controlling organisation.

It has been stated that in South Africa a beginning only can be noted of development and organisation of the meat export trade. In view of the fact that for some time past the head of cattle owned by Europeans and natives in the Union have been more than ten million and since 1929 have exceeded 10,500,000, (as compared with 11,700,000 in Australia) the quantities of beef and beef products are extraordinarily small. There has in fact been a somewhat tardy recognition of the possibilities in respect of this branch of the live stock industry. The tradition of the country favoured the production of a hardy type of cattle suitable for traction and transport and able to utilise the natural rough pasturage of semi-arid regions. Although there has been a more or less continuous introduction of improved Dutch or English breeds, largely for dairy purposes, provision of the necessary supplementary feedstuffs has not kept pace, and indeed climatic conditions in many areas make the production of forage crops and the improvement of pastures undertakings of great difficulty. Soil deficiencies also exist tending

to under-development and even to disease among livestock. In addition, with a European population that long remained below two million, the demand for prime or even good beef was limited, whereas the farmer could always rely on the internal market for maize, the staple food of the six million or so of the native population and largely consumed also by the Europeans.

About 1928 or rather earlier a few far-sighted agriculturalists began to urge that combined efforts should be made for the development of a beef cattle industry in the Union with a view to the building up of a beef export trade (1). A Government Mission of Enquiry was sent in that year to Argentina for the purpose of investigation of methods pursued on the farms and at the ports. A separate Division of Animal Industry was shortly afterwards established in the Department of Agriculture and a definite programme of propaganda has been followed by this Division in conjunction with that of Agricultural Education and Extension.

In the latter half of 1930 the Government introduced a Cattle Improvement Bill, of which the chief provisions were: proclamation of certain areas as cattle improvement areas; enforcement of the sale of slaughter cattle on a live weight basis; introduction of a levy to be used *inter alia* for the encouragement of the export of beef and beef cattle. Owing to want of support it was decided in February 1931 to postpone legislation, but the subject continued to receive the close attention of the Department of Agriculture and of all responsible for forming opinion on live stock questions.

In August 1931 a Conference of meat producers at Bloemfontein convened by the South African Agricultural Union appointed a special Committee for drafting proposals in conjunction with the Department of Agriculture for the benefit of the meat industry. This Committee in January 1932 urged the imposition of a levy for subsidising export trade, and the proclamation of cattle improvement areas, and asked for legislation.

During the Parliamentary session of 1932 a short Act was passed, published on 2 June in the Government Gazette, establishing a Meat Trade Control Board which came into existence on 1 August. This Board consists of three members, the Secretary of Agriculture, a representative of the stock farmers, and one of the meat selling trade. Among the powers that may be exercised by this Board are: regulation of the number of slaughter cattle to be transported by rail from any given area to any other, and of the numbers to be sold or offered for sale on any market; fixing of maximum prices, and imposition of a levy. In addition the Board has power to recommend to the Minister of Agriculture any steps that may be considered necessary or advisable for the meat trade, and has advisory powers in regard to any matter referred to it by the Minister. The Board on appointment undertook a tour for the purpose of study of the Union's principal markets, the avowed policy being one of non-interference where conditions are found to be satisfactory.

(1) Prof. H. D. Leppan's work "The Agricultural Development of Arid and Semi-arid Regions, with special reference to South Africa" published in 1928 did much to stimulate farming opinion in this direction.

It was fully recognised that such a measure was not in itself adequate to the programme of amelioration under contemplation, and early in August 1932 the Department issued a pamphlet with the title "Livestock and Meat Industry Draft Legislation" intended for the careful consideration of the farmers' organisations. Suggestions and criticisms, as well as assurances of support, were invited, and it was understood that if the draft proposals received the general support of the farming community legislation would follow in the course of the next session of Parliament.

These proposals included the establishment of an expanded Control Board of eleven members including two sheep or goat farmers and two cattle farmers, one pedigree cattle breeder, one representative of each group of meat exporters, wholesale and retail butchers, as ex-officio advisory members, the Chief of the Division of Economics and Markets and the Director of Veterinary Services and Animal Husbandry. (1) An officer of the Department of Agriculture, nominated by the Minister, was to act as chairman. The Minister also has power to refer back to the body or association concerned any nomination of a representative in his opinion not suitable or unqualified for the position, and under certain conditions himself to make the appointment.

The powers of the proposed Board included: the imposition of a levy on all cattle or sheep slaughtered at any recognised abattoir, the levy not to exceed 2s. per head on cattle over six months, and 6d. on cattle under six months old and on all sheep and goats; payment of bounties to persons exporting meat, in accordance with grade of meat exported; general improvement of marketing conditions and publication of market information and advisory power. The Board may advise the Minister as to restriction of the number of butchers (wholesale or retail) in any town if the existing number is considered to be in excess of requirements, special regard being had to the position of any co-operative organisation of live stock producers that may exist. The proposed Board will also have the same powers as the existing Board in regard to the fixing of maximum numbers of cattle, sheep or pigs, or quantities of meat that may be transported by rail in or out of defined areas during any given period, and of the numbers of animals that may be sold during any period at any specified market. Maximum prices may also be fixed by proclamation.

The proposals also included provision for collecting the levies, and definition of illegal practices affecting the trade. An important chapter dealt with the improvement of cattle by the proclamation of stock improvement areas following on the recommendation of meetings of cattle farmers, and the sale of slaughter cattle by live weight. The Minister of Agriculture is empowered on the recommendation of the Board to advance funds out of sums specially voted by Parliament to enable slaughter stock co-operative societies or companies to erect cold storages under approved conditions.

It will be seen that the proposals are very comprehensive, and are not, as was the original 1930 Bill, confined to the cattle industry alone. There is in

(2) Later the Director of Agriculture, Department of Native Affairs, was added to the number of advisory members.

fact provision for further extension in this respect, and it is clear that the objective is the improvement and development of the live stock and meat industry in all its branches.

The reception given to the proposals by farmers' organisations was decidedly encouraging. A conference of over 150 meat producers from all parts of the Union was specially convened at Bloemfontein by the South African Agricultural Union within a week of the publication of the proposals. The meeting was addressed by the Secretary for Agriculture who explained that the problem was briefly to increase the returns from live stock and improve the live stock of the Union, and that the solution of the meat problem must be sought in export which must be made an attractive proposition through the payment of bounties. As regards internal trade, too many persons were engaged in trading and the restriction of butchers' licenses was essential. The meeting discussed the scheme in detail and finally accepted it with certain amendments, of which the most important was the raising of the levy on cattle from 2s. to 4s. Among other amendments was that empowering the Minister to purchase or hire existing cold storages as well as to advance funds for the erection of new storages. The meeting was fully representative of the Cape and Free State producers, but there was only a scanty representation of the Transvaal and Natal. Early in September a meeting of Transvaal meat producers also expressed agreement, the main objection raised being in regard to the power of the Minister to reject nominations to the Board. This power is however regarded as a necessary safeguard, and although the objection has been raised on several occasions no modification has been admitted. Of the two other meetings held in September, the annual congress of the Cape Province Agricultural Association approved the proposals with the increase in the levy, and urged the establishment of a meat canning industry and also provision of loans to municipalities for the purposes of the proposed legislation; while the annual meeting of Shorthorn Breeders in Bloemfontein expressed approval with reserve as regards the Minister's power to reject nominations.

A full recapitulatory discussion of the draft legislation again took place at the Congress of the South African Agricultural Union held in Durban in October, and the meeting formally requested that the legislation should be introduced into Parliament in the session. This may be regarded as the virtual acceptance by the farming community of the proposals with the approved amendments. It is however clear that considerable difference of opinion exists as to the possibility and advisability of control of the Union internal markets. It was also made evident that some definite recognition of the South African Agricultural Union was desired in connection with nominations to the proposed Board.

It will be noted that the Secretary for Agriculture was present at most of these meetings and that every possible endeavour was made to explain the objects of the proposals and to meet criticisms. The initiative in South Africa has come from the Government, and not as in Australia from the large producers' organisations. The fact is that in South Africa there is an absence or comparative weakness of specialised associations of graziers or meat producers.

The South African Agricultural Union with its provincial branches is a Union of farmers of all types and its discussions usually cover so large a range of subjects that concentration on effective resolutions is apt to be sacrificed. The strong lead taken by the Union Government would seem accordingly to be of particular value to the industry.

The Bill introduced into the Union Parliament early in February 1933 is in essentials identical with the draft proposals, incorporating the approved amendments. The membership of the Board is raised to 13 by the addition of another representative of the selling trade and, as an advisory member, the Director of Native Agriculture. Of the ten voting members there will thus be five farmers or breeders and four representatives of the trade, with the chairman who must be an officer of the Department. From the increased levy funds are to be made available for improvement of local marketing of slaughter stock. On the other hand meat and animals below a specified grade are to be excluded from benefit under export bounty. Special provision is made for the recognition and financing of co-operative organisations handling meat. The Bill has met with some opposition in the House and has been referred to a Select Committee before second reading.

The welcome accorded to the Government proposals by the farming community in South Africa was accompanied by a spontaneous move on the part of the meat producers for the development of co-operation in the meat trade. It is considered that the producer would gain from direct contact with the large selling centres of the Union and the improved abattoirs, and for some time past proposals for a National Co-operative Meat Exchange have been under discussion. The proposal finally formed part of the agenda of the meeting of meat producers already mentioned as taking place in Bloemfontein in August 1932. It was explained that it is not the object of the Exchange to enter the retail trade, but to ensure the supply of members' stock under the best conditions to the large selling centres, and to encourage export. The intention was to form a co-operative company with limited liability, with £1 shares, no subscriber to take less than ten. Business operations were to be begun when 250,000 shares had been subscribed, but an initial payment of 2s. per share would be accepted. Some opposition was raised at the meeting, and it was urged that a district rather than a national basis was advisable, also that some further enquiry should first be made as to the measure of support probable among producers. The company was however formed, although a month later registration was refused under the Co-operative Societies Act of 1922 on account of some irregularities which had taken place at the meeting. A further conference was called in November and the scheme was successfully launched, the Registrar of Co-operative Societies and the Secretary for Agriculture being present. The Secretary for Agriculture urged that the Exchange should come to some equitable arrangement with existing co-operative organisations, and also recommended that the Exchange should make use of the facilities to be included in the new legislation for the erection of cold storages at different points.

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The problem of the relations existing between population and economy has of late assumed a special significance which is the result of several causes. Among these are the phenomenon of unemployment, the restrictions that have been placed on international migration, the reversal, in many countries, of that tendency to internal migration which has been an accepted fact since the middle of last century, and finally the indications in areas of small or family farming in Europe of a pressure of population which is causing a certain anxiety. In this brochure the writer, who is an authority on demographic questions, makes a special study of the relations between economic development and the fall in the rate of increase of population.

It is regarded by the author as fundamentally established that it is a multiplicity of factors, acting and reacting as causes and effects, which brings about the reciprocal influence exercised between growth of population and economic development. The direction and the force of these individual factors are liable to great variations as between different periods and different nations, so that the effect cannot be understood if the single factor is taken in isolation but only when its tendency is considered. Whether this tendency proves a determining one or otherwise, depends on the extent to which other factors are effective.

It is only by examination of all possible combinations of the single factors, or tendencies and counter-tendencies, that an insight can be gained into the relations that really exist.

Whereas the older economists (Ricardo, Malthus, J. S. Mill, and others) visualised the problem mainly as that of the great increase of population, the interest now lies in the consequences of a regression in or a stationary position of the rate of increase of population. It requires no demonstration that the growth of population exercises a quite extraordinary influence on the economic situation. What however is also self-evident — although unfortunately in practice it is not often recognised — is that account must be taken, not merely of the numerical increase of the population, but of the increase in purchasing power, mental outlook, dietary, standard of living, and likewise of its objectives and aspirations. On our own times economic development is dependent to a far greater extent than formerly on these factors. This is clearly indicated by the writer in his discussion of the effects of the regression or stationary position of rate of population increase alike on economic life, the labour market, migration, building up and movement of capital, the marketing possibilities for the products of the different branches of industry or farming, the internal and the world market, and on the occupational grouping of the population.

PETERS Dr., Staatssekretär z. D.; Die landwirtschaftliche Berufsvertretung. Berlin, Deutsche Verlagsgesellschaft, 1932, 120 S.

[The basis of this work is to be found in an opinion voiced in the spring of 1932 by a Committee appointed to enquire into the present conditions of the vocational representation of the German farmer. The author was himself chairman of the Committee, and the guiding idea of the work is expressed in the following sentence with which it opens: "There is a widespread conviction in farming circles, which is increasing in strength under pressure of the general crisis, that the present form of our vocational organisation is wanting in unity and in independence, and that it is

moreover much too costly." The object of the writer is to prove this assertion by quoting facts and figures

In the first instance a general outline is given of the development of the social and economic conditions of German agriculture up to the abolition of serfdom. This forms the historical background against which the legal and economic structure of the vocational organisation of agriculture may be clearly distinguished. As early as the time of the Prussian *Landes-Kultur Edikt* of 11 September 1811 the formation of agricultural societies, probably on the initiative of A. THIER himself, was contemplated. These later took shape as central agricultural associations or unions which were the first organisations for vocational representation of German agriculture. Their character was that of associations formed rather for purposes of technical agriculture than with economic objects and their membership was mainly drawn from the large landowning class. When in 1891 the Chambers of Agriculture were founded, these independent associations which had been subject to a certain measure of State supervision were dissolved.

In the meantime a whole series of other agricultural organisations had appeared in consequence of the process of differentiation of social conditions which went on in the country during the course of the 19th century. Thus in 1862 the German peasant farmer associations (*Deutsche Bauernvereine*) were formed. These in 1900 were amalgamated into the Federation of German peasant farmer associations (*Vereinigung der Deutschen Bauernvereine*). The object of these associations is to maintain a peasant or family farming class attached to the soil, to promote co-operation, etc. In 1885 the German Peasant Farmers' Union (*Deutscher Bauernbund*) was formed. The intention was to group all farmers in this Union but on the foundation of the Farmers' Union (*Bund der Landwirte*) in 1893 it became absorbed into that body. This Union, which up to the time of the world war was of steadily increasing importance, was in favour of the policy of protection of agriculture by tariffs. On the other hand the *Deutsche Bauernschaft* formed in 1909 out of the German Settlers' Union (*Deutscher Ansiedlerbund*), adopted free trade principles. In 1886 the German Society of Agriculture (*Deutsche Landwirtschaftliche Gesellschaft*) was founded on the model of the Royal Agricultural Society of England. After the war the German Agricultural Union (*Deutscher Landbund*) was formed in 1919 as an unofficial association of agriculture, and in 1921 it was amalgamated with the *Bund der Landwirte*, the new organisation being entitled the Agricultural Union of the Reich (*Reichslandbund*).

All these independently formed associations, as also the Chambers of Agriculture established by legislation and the voluntary union of the official agricultural organisations, *viz.*, the German Council of Agriculture (*Deutscher Landwirtschaftsrat*), founded in 1872, do much admirable work, but it would appear that the administration expenses are not always in proportion to the activities accomplished; many expenses are incurred which have no direct relation to the interests of agriculture. In almost all these organisations there is little, if any, rationalisation of work, and the financial charges entailed upon the agricultural population are too heavy. The agricultural co-operative societies and their Central Union employ 17 million marks annually, the *Reichslandbund* 10 millions, the peasant farmers' associations 4 millions, the *Deutsche Bauernschaft* one million marks, and the other voluntary agricultural associations cost another 8 million. Thus the total cost is 40 million. The German Chambers of Agriculture in addition cost 19 million marks yearly. It is the view of the writer that here, as everywhere else, considerable economies ought to be effected. In the Prussian Chambers of Agriculture alone about two million marks or 16 per cent. of the total expenditure could be saved by a rationalisation of administrative methods.

In the non-official vocational representation of agriculture the strength of the organisations is often uselessly dissipated to the prejudice of farming interests. These bodies ought, so far as possible, to be simplified and amalgamated and the costs of their working should be reduced. On the other hand the Chambers of Agriculture also stand in need of reform. They must be brought into a closer contact with the members of the farming profession, and the electorate so modified as to make it possible for membership of the Chambers to be open also to farm workers. Since the existing agricultural organisations are not, for the reasons stated, always adequate to the work that has to be accomplished, the author proposes to restore the former Farmers' Union (*Bund der Landwirte*) apart however from its earlier errors of judgment.

The author's presentation of the theme is throughout characterised by a certain objectivity; he has a thorough acquaintance with his subject and writes with great frankness and sincerity. As he rightly observes, "It is essential that the criticism now made be unsparing, otherwise it fails of effect and is afraid of its own courage. When it is based on objective grounds, then it cannot be out of place and must win respect."

The procedure followed by the author, which is to establish connection between the growth of the vocational representation of agriculture and the historical position of agriculture at any given time, makes this enquiry one of high documentary value and at the same time is proof of the author's profound acquaintance with the scientific principles of modern historical research].

M. T.

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CREDIT

Credit Conditions and the Indebtedness of Agriculture in Central and Eastern European Countries.

INTRODUCTION

In considering the development of the need of credit for agriculture, it will be observed that it has increased considerably in recent years, partly on account of reasons which go back to facts that arose during the war period, partly on account of the new necessities of the present situation. Amongst the first must be placed above all the destruction and devastation caused by the war, which were very serious in certain regions and have not yet been completely repaired. During the war, it is well to remember, damage was done not only to rural buildings, to roads, to bridges, to embankments, and to live and dead stock, but also to the land itself, trenches being dug and defence, siege and approach works constructed; the surface of the ground was torn up over a greater or less area and to varying depths; the forests, the reserves of wood, the plantations of fruit trees were destroyed systematically or as a result of bombardment or of the necessities of defence; the herbaceous and woody crops of various kinds were also destroyed. Enormous sums were required to restore the land to a state of regular cultivation and to replace buildings, drainage and irrigation works and live and dead stock.

Another fact which has given rise to considerable need for credit is the radical transformation in the distribution of rural property which has taken place as a result of the agrarian reform in the countries with which we are dealing. By this reform a great number of small landowners has been created and they required credit for the payment of the expropriation indemnities and for the expenses of farming the lands and of making improvements.

To the second group of facts which have helped to increase the demand for credit belong the widespread and gradual process of the specialisation and industrialisation of crops, the ever wider application of the principles of agricultural chemistry and agricultural mechanics, the electrification of the country districts and, in general, the more scientific organisation and equipment of the farms.

When the world economic crisis, which is essentially agricultural, occurred, the problem became even more complex, owing to the fact that to the demand for capital for the reasons indicated above was added the demand for means to meet the new difficulties and necessities and, in particular, to carry out the transformations and adaptations rendered necessary by the new level of prices and to

organise the most remunerative methods of marketing the products. Quite a new series of credit needs has thus arisen connected with the financing of sales and the construction of elevators, warehouses, cold stores, etc. Thus to the demand for credit in support of the process of production has been added the demand for credit in support of the process of distribution, which formerly gave rise to less anxiety.

Now agriculture in many countries has not had, in recent years, the sums of which it had need, firstly because of the inadequacy of the means at the disposal of the State, and secondly because private capital generally avoids agricultural investments, which only give modest returns.

The situation of the Central and Eastern European countries is particularly delicate and difficult. Essentially agricultural countries, deriving mainly from agriculture the means of existence, they have felt very seriously the effects of the crisis. The fall of prices has reduced the profit-earning capacity of the farms to a very low level and has often resulted in loss. To give some examples according to the statistics published by the rural economy institutes of the respective countries, in Poland the net return (that is, the gross return less the farm expenses) has fallen from 103.70 zlotys per hectare (2.79 per cent. of the total capital invested) in 1929-30 to 26.96 zlotys per hectare (0.61 per cent. of the capital invested) in 1930-31; in Rumania the net return per hectare has fallen from 2,739.30 lei (4.25 per cent. of the capital invested) in 1929-30 to 830.45 (1.90 per cent. of the capital invested) in 1930-31. The decline in the foreign trade of the same countries, of the exports of which agricultural products form the bulk, has brought about a general depression. The crisis of the markets and of consumption, by rendering sale difficult, has resulted in the formation of large stocks of goods which it is difficult to liquidate.

As a consequence of the want of balance between receipts and expenditure, the indebtedness of the farmers has seriously increased. The figures relating to indebtedness, which we shall give in detail for each country, are impressive and form, so to speak, the most significant expression of the unfavourable conditions of these countries. From the available statistics it results that there was a decrease in rural indebtedness during the war and immediately afterwards; this decrease was due to the fact that at that time there were fewer demands for loans and to the fact that the debtors took advantage of the depreciation to free themselves from the charges they had assumed. Afterwards, during the phase of deflation and stabilisation, agriculture particularly felt the effects of them and indebtedness began again. In 1925-26 a new period of price fluctuation started. For agriculture, in particular, it must be recalled that the crops, once the serious post-war depression had been overcome, have increased since 1925, causing severe congestion on the world market and a fall in the price-curve, which was particularly marked in 1930 and 1931. With this contraction in the farmers' returns, the rigidity of certain items in the cost of production (wages, taxes, social charges, maintenance expenses and amortisation of buildings and dead stock) contrasts.

If, on the other hand, we examine the composition of the indebtedness, we find that that part of the debts which was contracted during the phase of

high prices is a heavy burden, on account of the instalments of amortisation and the rates of interest, on the farm budgets; another part of the debts, a not inconsiderable part, was contracted for purposes of consumption or, in any case, for unproductive purposes; in both these cases, in present circumstances, the repayment of the loans is highly problematical, though for different reasons.

As to the rates of interest, a distinction must be made between loans obtained in the field of organised credit and loans obtained on the open market. In the first case either owing to the spontaneous initiative of the banks, or to the intervention of the public authorities, may be noted a mitigation of the rates which, however, remain out of proportion to the present returns from farms, and this contributes to aggravate the burden of their debts. In the case of loans obtained on the open market, on the contrary, the price of money remains, in general, very high and often it is usurious in character. This is all the more the case when there is a scarcity of capital in the banks and the borrowers are compelled to have recourse to private individuals to obtain the funds of which they have need. The debts to private persons, being ordinarily contracted on very onerous terms, without the possibility of control which exists in the case of organised credit, represent the form of indebtedness which gives rise to most anxiety.

The co-operative organisations collaborate very effectively against usury. In speaking of these organisations it must also be noted that there is a growing tendency on the part of credit institutions to rely upon them for the distribution of loans. Taking the view that agricultural credit business carried on through the medium of co-operative societies is more certain to attain the purposes for which it is intended, the banks tend more and more to establish close collaboration with these organisations. The number of loans granted through the medium of co-operative societies, in fact, is everywhere increasing.

However it may be, the problem of indebtedness and of the conversion of onerous debts, is receiving much attention in the countries in question. Several measures, as we shall see later, have been adopted in recent years for the purpose in the different cases, of the compulsory conversion of debts, that is the reduction, by force of law, of the interest and often even of the amount of the loans, of the suspension of forced sales, of the imposition of minimum prices in the sales of expropriated property, etc. But these radical measures have generally had results contrary to what was hoped from them, since they place the financial institution in the position of being unable to meet their engagements to their depositors and to those who have supplied money to them. A state of almost complete inactivity on the part of the banks has resulted, as they have thus been compelled, sometimes, to interrupt or to limit the conclusion of new operations, just at the moment when the farmers had most need of being helped. The regrettable consequences of this form of public intervention, however justified it may be by the force of circumstances, have shown the desirability of having recourse rather to measures which respect contractual obligation, and protect the debtors without too greatly sacrificing the

creditors, such as the repayment of loans by instalments, contribution by the State to the payment of interest, etc.

In dealing with agricultural credit conditions in Central and Eastern European countries, special note must be made of the necessity which they feel, as results from recent inquiries conducted by experts in the subject (1), of a greater development of medium-term credit.

To satisfy the requirements of these countries, two forms of credit of this kind are contemplated. The first would include the loans necessary for the purchase of chemical fertilisers, of selected seeds and of various agricultural requisites, loans for the fattening of live stock, for paying the wages of labour, etc. These are the expenses which, all of them, frequently compel the farmer to sell his products at an unfavourable moment and, in particular, immediately after the harvest. This kind of credit, to be granted for a period not shorter than 9 months nor longer than 18 months, would contribute not only towards improving the situation of the grain market, but also to increasing the purchasing power of the rural producing classes, by increasing the returns they obtain from the sale of their products.

The second form of medium-term credit contemplated would include loans for agricultural and land improvements, to be granted for a period not longer, in principle, than five years. They should be intended essentially for:

- (a) the purchase of dead stock,
- (b) the purchase of live stock, particularly breeding stock;
- (c) the repair, conditioning and enlargement of buildings and, in general, any improvement capable of rapid amortisation;
- (d) to the improvement of pools, vineyards, market gardens, apiaries, etc.
- (e) the clearing of lands;
- (f) the carrying out of certain agrarian operations, such as the consolidation of scattered parcels, etc.;
- (g) the conversion of onerous debts contracted apart from credit institutions.

As may be seen, the greater part of these loans is intended for improvement of farm equipment and for rationalising the working and, in fact, for effecting a more economic organisation of the undertaking.

Now, in the majority of the countries in question, the farmers, not being able to obtain medium-term credit for the purposes above indicated, have had to have recourse to short-term credit and, not being in a position to meet their engagements within the period fixed, have often found themselves compelled to contract new loans at exorbitant rates of interest, and this has rendered their situation extremely precarious. We may add that, precisely in the present phase, it is frequently indispensable to make investments of capital which, like changes of crops cultivated and conversions of debts contracted at onerous rates, resolve themselves into decrease in the working expenses, thereby allowing the farmer to meet the fall in the prices of products.

(1) Meeting of experts of the centre and south-east of Europe. Warsaw, November 1930. Memorandum on the subject of medium-term agricultural credit.

While medium-term credit is not used or at any rate is not very frequent in certain of the countries considered, long-term credit is not always easy to obtain, partly on account of the absence or defectiveness of legislation relating to mortgages and foreclosures, and to the want of a system of land registers and of guarantees firmly established. In this case also the farmers are obliged to have recourse to various forms of short-term loans, which have to be renewed during a long period and are granted at very high rates of interest, which appreciably increase the cost of production.

But, independently of the technical or juridical defects of the organisation of agricultural credit and of the working, sometimes very cumbrous and costly, of the banks, the essential and most urgent question, at the present time, is that of capital, which is not available to the extent required in order to finance either the production or the marketing and export of products.

In the most authoritative international circles, on the other hand, agreement has been reached, after numerous discussions, on the following conclusions: (a) that the scarcity of capital presents a serious obstacle to the development of commercial relations between the industrial and the agricultural countries and that it constitutes one of the principal factors which prevent farmers from changing the crops they cultivate by giving up the cultivation of those crops of which the production is at present too abundant and adopting those crops of which the consumption tends to increase; (b) that all measures which tend to raise the standard of life in those European countries where it is at present relatively low necessarily contribute towards increasing in those countries the demand for the more valuable forms of agricultural produce, such as meat, milk, fruit, etc.; (c) that the granting of credits, more particularly in the countries where the rates of interest are abnormally high, would contribute, on the one hand, towards altering production, and on the other hand, towards bringing about an increase in consumption, two conditions equally necessary for the general improvement of the situation of agriculture; (d) that these measures would result in increasing the purchasing power of the rural populations and, in particular their demand for industrial products.

Now, having noted, in regard to the majority of the countries with which the present report deals, the impossibility of an adequate national solution of the problem of credit, which requires means with which, at present, they are not provided, the idea of an international solution has become generally accepted, that is, the idea of concerted collective action for the purpose of ensuring the passage of money from the states which possess it to those which do not possess it. Two proposals for carrying out this programme have been put forward, the one on the initiative of the League of Nations, which contemplates the formation of an International Agricultural Mortgage Credit Company for carrying on medium term and long-term credit business, the other, on the initiative of the International Institute of Agriculture, which contemplates the formation of an International Agricultural Short-Term Credit Bank. The first of these proposals is intended principally to facilitate the conversion of onerous debts and thus to relieve the burdens which weigh upon agricultural production; the second is intended mainly to facilitate the marketing of agricultural products and to maintain

the prices. Both objects are of fundamental importance for the Central and Eastern European countries, as results from the detailed examination which we shall now make of their credit conditions

AUSTRIA

In Austria the institutions which supply credit to agriculture may be divided into two groups, those which supply personal credit and those which supply mortgage credit (1).

Personal credit, particularly for peasants, is supplied mainly by the Raiffeisen banks, which numbered 1,791 in January 1933. The local savings banks also grant loans on personal security to farmers, but the institutions formed and organised expressly to satisfy this demand are the Raiffeisen banks. They exist in almost all communes and grant short term loans to facilitate the working and management of the members' farms, taking account, on the one hand, of their actual needs and, on the other hand, of the degree of safety which the operation in question presents. The necessary capital for this purpose is obtained — on the basis of the unlimited liability of the members — mainly by the acceptance of savings deposits from members and other persons.

Agricultural mortgage credit business is done by three types of institution :

(1) The provincial mortgage institutions (*Landeshypothekenanstalten*), the function of which is to procure long term credit for agriculture without endeavouring to make any profit on the business ; these are public institutions guaranteed by the province;

(2) Joint stock banks and private banks, which in granting loans endeavour also to make a profit;

(3) Local savings banks, which make loans for short and medium periods on mortgage security but only for the purpose of finding a safe and lucrative investment for their deposits.

The difference between these three types of institution is not, in practice, very great as owing to the competition their rates of interest are maintained almost at the same level ; but the *Landeshypothekenanstalten* endeavour to keep the rate of interest as low as possible, and thus indirectly compel similar institutions to adopt the same policy. The only practical distinction which there is occasion to make is that certain of these institutions are authorised to grant loans for long periods by means of the issue of bonds, bearing a relatively low interest and redeemable by annual instalments according to a special plan of amortisation, whilst others only grant short-term mortgage loans, the repayment of which can be demanded.

The institutions authorised to issue bonds are the *Landeshypothekenanstalten*, certain joint stock banks and certain savings banks. But in practice the institutions which issue land bonds are at present the seven *Landeshypothekenanstalten* and the *Österreichische Kreditanstalt für Handel und Gewerbe*.

(1) Dr. F. J. SEEFRIED : *Die Kreditlage der Landwirtschaft Österreichs*. Agrarverlag, Wien, 1931.

Agricultural credit business is now also done by the *Zentralsparkasse der Gemeinde Wien*.

The business carried on in favour of the farmers, in 1930 and 1931, by the *Landes-Hypothekenanstalt für Niederösterreich*, which may be regarded as typical of this class of institution, was as follows :

Number of loans		Percentage of total number		Classes of borrowers	Amount of loans (Schillings)		Percentage of total amount	
1930	1931	1930	1931		1930	1931	1930	1931
2,184	2,330	18.6	17.9	<i>Kleinhausler</i> (1)	4,593,350	4,901,250	7.4	7.0
5,252	5,808	44.7	45.2	Farms	29,345,950	33,454,050	47.3	47.5
690	741	5.9	5.7	Undertakings of mixed character	5,901,700	6,399,000	9.6	9.1
113	132	1.0	1.0	Separate agricultural lands	386,700	484,900	0.6	0.7
32	33	0.3	0.3	Large properties	2,793,000	3,428,000	4.5	4.4
8,271	9,104	70.5	70.1		43,060,700	48,667,800	69.1	69.2

(1) Workers occupying small plots of land with a cottage

From this table it appears that the agricultural loans continued to increase ; they were, in fact, one eleventh larger in number in 1931 than in 1930 and one ninth larger in amount.

A study of the loans granted in 1931 to individuals by the *Landes-Hypothekenanstalt für Niederösterreich* shows that they were given for the following purposes: Conversions of short-term loans into long-term loans represent 38 per cent. of the total amount of the loans ; three tenths of the total amount were given for investments and improvements (construction and repair of buildings, industrial installations, drainage and irrigation works, planting of vineyards, etc.) ; payment of the purchase price of lands, providing for children or setting them up in business, payment of shares of property inherited account for a little more than one fifth of the total ; the remainder is partly accounted for by loans for the purchase of live and dead stock, the supply of feeding-stuffs, seeds, chemical fertilisers, agricultural, industrial and commercial installations.

The rates of interest on agricultural loans in general, although appreciably lower than during the period of inflation, are still more than double what they were before the war. The *Landes-Hypothekenanstalt für Niederösterreich* charged at the end of 1931 on loans granted by it interest at rates ranging from 7.68 to 12 per cent., including the expenses of management and the refund of the tax on the interest. The rate charged by the local savings bank was between 8 and 9 ½ per cent. In consequence of the recent reduction of the rate of discount of the National Bank, the rates of interest on mortgage loans have also been revised. They have been fixed at 7 per cent. for long term mortgage loans and at 6 ½ per cent. for loans for repairs, but these latter are only granted to a small extent. The

Raiffeisen banks, in recent years, have charged, on the average, the following rates of interest :

At the end of 1925	12 3	per cent.
» » 1926	10 2	»
» » 1927	9 3	»
» » 1928	8 7	»
» » 1929	8 6	»
» » 1930	7.9	»
1931	9.0½	»

The effects of the reduction of the rate of discount of the National Bank cannot yet be determined.

The rates of interest indicated are, doubtless, out of proportion to the returns from the farms and added to the taxes and the social charges render their situation very precarious. If account is taken, on the other hand, of the situation of the money market, there is no ground for anticipating a reduction of the rates of interest in the near future.

As in other countries with which we deal in this report, the indebtedness of the farmers in Austria has been increasing in recent years, as a result both of general causes and of special causes. According to the statistics of agricultural accountancy compiled by the *Landes-Landwirtschaftskammer*, the indebtedness per hectare of cultivated land for peasant farms in Lower Austria was on the average :

On 1 January 1925	8.37	schillings
» » 1926	58.10	»
» » 1927	58.19	»
» » 1928	106.31	»
» » 1929	121.88	»
» » 1930	129.87	»
» » 1931	128.47	»

Statistics for 1932 are not yet available, but it may be estimated that on 1 January 1932 the indebtedness per hectare amounted to 139.23 schillings.

If to these figures are added the statistics compiled by the Accountancy Offices of the other States of the Confederation, it may be calculated that for peasant farms in the whole of Austria the average indebtedness was 91.43 schillings on 1 January 1927 ; 120.69 schillings on 1 January 1928 ; 143.20 schillings on 1 January 1929 ; 179.30 schillings on 1 January 1930 and 189.40 schillings on 1 January 1931. Allowing the same percentage of indebtedness per hectare for large estates, we arrive at a total indebtedness for the whole country of 900 millions of schillings on 1 January 1928, thus distributed : Mortgage debts, 315 millions ; other debts for fixed investments, 450 millions ; current farming debts, 135 millions. In the years 1929, 1930 and 1931 the total indebtedness of agriculture in Austria amounted respectively to 1,075 millions, 1,344 millions, and 1,419 millions of schillings.

The indebtedness may also be calculated from the loans granted by credit institutions, for the types of institution mentioned an aggregate figure is obtained of about 614 millions of schillings at the end of 1928, a figure which is lower by 236 millions than that calculated by the previous method.

Neither of these two methods of estimating the indebtedness enables us to arrive at precise results, but only at rough approximations. It is interesting, however, to note the difference in the indebtedness of different types of farm calculated for the whole of Austria by the *Niederösterreichische Landes-Landwirtschaftskammer*. The figures for 1930 and 1931 were as follow:

	Capital per hectare in Schillings		Debts per hectare in Schillings		Debts as percentage	
	1930	1931	1930	1931	1930	1931
Vinegrowing holdings . .	8,101 29	8,920 87	317 40	473 97	4 2	5 3
Holdings on which vine- growing is combined with other forms of agriculture	4,304 48	4,265 91	157 16	222 84	3 7	5 2
Grain-growing holdings .	3,068 65	3,199 46	235 70	252 32	7 7	7 0
Grain-growing and grazing holdings	2,737 19	2,538 90	205 59	199 48	7 5	7 5
Holdings on which forestry is combined with agri- culture	1,590 06	1,484 00	126 10	138 20	7 9	9 3
Grazing holdings	2,628 22	2,958 52	253 13	331 38	9 6	11 2
Forestry holdings . . .	952 92	1,080 55	57 12	81 80	5 4	7 0

Amongst the causes of indebtedness one of the most frequent in the past was the construction or repair of buildings; next came debts incurred in connection with the payment of the purchase price of lands or of the shares of inherited property; other causes, such as land improvement, works for intensifying the farming, working expenses, had diminished in importance. With the difficulties resulting, at one time, from the stabilisation of the currency, and afterwards from the agricultural crisis, new causes of indebtedness arose. In consequence of these two facts, the peasants, who form the majority of the farmers, contracted debts for purposes of consumption.

The net return, as a percentage of the capital invested in the holding, not including the interest on capital, declined, in fact, from 4.41 in 1927-28 (397 holdings studied), to 2.93 in 1928-29 (743 holdings), to 2.51 in 1929-30 (896 holdings) to 1.38 in 1930-31 (922 holdings) and to -0.40 in 1931-32 (922 holdings). The return, including interest on capital and allowing an equitable rate of interest, 5 per cent., is negative, that is, it represents a loss which increased from 0.59 per cent. in 1927-28 to 2.07 in 1928-29, to 2.49 in 1929-30 to 3.62 in 1930-31 and to 5.40 in 1931-32.

The very small returns or annual losses continually increased the demands for credit. The indebtedness accordingly came to be formed principally by loans for unproductive or only slightly productive purposes. To the latter belong, for

example, the loans referred to for the construction and repair of buildings, loans which require a long period of amortisation and do not pay the cost of the money. The comparison between the cost of the money and what is derived from its use, is precisely what indicates the gravity of the situation, since it makes it possible to determine whether the capital is economically invested or not. Now, studying the formation of the indebtedness it can be seen that the new debts were contracted, to a large extent, without a productive purpose; they represent, therefore, a lasting burden, difficult to reduce. The numerous conversions of short-term debts into long-term debts reveal the embarrassment of the rural classes. However it may be, whether the debts were contracted for temporary necessities or with a view to improving the working of the farm, it is the fact that the returns do not now suffice to pay the interest and the instalments of amortisation. The indebtedness thus increased will only be slowly reduced by the future returns of the farms. The crisis of capital and the crisis of earning capacity have together brought about the present serious crisis of credit in agriculture.

BULGARIA.

The Bulgarian system of agricultural credit is centred mainly in the Agricultural Bank of Bulgaria, a State institution, established by the Law of 31 December 1903, which had at its disposal on 1 January 1933 owned capital amounting to about 802 millions of levas and deposits amounting to 5,374 millions of levas. It supplies credit both for short and long terms, both directly and through the medium of co-operative societies, on which the whole agricultural organisation of the country is based.

Short-term credit takes two forms: (1) loans on the security of promissory notes; (2) loans on the pledge of movable property (warrants).

The first form is intended to satisfy temporary and occasional needs, such as the extinction of small debts, the maintenance of the family, the purchase of seeds or implements, the payment of harvest expenses, etc. In conformity with the law, loans on the security of promissory notes, without sureties, are granted to heads of families up to 5,000 levas, and with sureties, up to 20,000 levas. Such loans are for periods ranging from 1 to 12 months. The grant of these loans is conditioned by the solvency of the debtor and of his sureties, as well as by their moral qualities, which are almost as important as the object for which the loan is granted.

The loans on pledge, though classed amongst short-term loans, are by their nature medium-term loans. They are in fact repayable in one, two or three years and are granted for the more important purchases of machines and ploughing sets, for the purchase of draught animals and breeding stock; for the purchase of seeds and feeding stuffs in large quantities, etc. This kind of loan is granted up to 20,000 levas, with or without sureties. But this limit, according to the object for which the loan is asked and according to the position of the debtor — as owner of movable or fixed property — and the value of the products and stock pledged, may be extended to 50,000, 100,000, 200,000, 300,000 levas or even more. The loans in question are usually granted on the pledge of all the

movable property of the borrower and may amount at most to 50 per cent. of the value of the property pledged.

The loans on pledge represent the form most widely used; they are particularly encouraged, for they form a relatively liquid investment, being more easily repaid on the due date. In 1931, as compared with loans on promissory notes to the amount of 789,224,000 levas loans on mortgage to the amount of 387,862,000 levas and loans to the State, to the communes, etc., to the amount of 704,914,000 levas, the loans on pledge amounted to 1,410,692,000 levas.

As to long-term credit, it is mortgage credit granted ordinarily for the purchase of lands, for agricultural buildings, for improvement works, for the conversion of loans obtained from other parties than the Bank.

According to the law, these loans are only granted on the security of first mortgages and their amount must not exceed half the estimated value of the property mortgaged. The mortgage lasts for a period varying from two to 50 years.

Apart from the granting of the loans mentioned which the Bank advances directly to the farmers, it helps the rural population, as we have already stated, through the medium of the agricultural co-operative societies. With these latter, the Bank transacts the following business: (1) It opens personal credits for them on agreements based on their capital and the liability, limited or unlimited of their members; these credits are utilised in the form of overdrafts on current account on which interest is payable; (2) it grants them loans or opens current accounts guaranteed by the pledge of securities, of live stock, of agricultural machines and ploughing sets, of agricultural produce, raw and manufactured, of non-perishable goods, etc.

The productive agricultural co-operative societies also obtain mortgage credit from the Bank.

Side by side with the credit business of the Bank, co-operative credit business is done in the country, and the Bank tends to transfer short-term business entirely to the co-operative societies.

The Agricultural Bank of Bulgaria also makes advances to the State in the form of overdrafts on which interest is payable. It subscribes to the loans issued by the State and makes advances, duly guaranteed, to the communes and departmental councils. The Bank, moreover, purchases, to the order and on the account of the farmers, machines, ploughing sets, live stock and seeds, and acquires, to save them from speculators, even a part of their production; it builds elevators, warehouses and other installations indispensable for carrying on the grain-trade on rational lines and for conducting warrant-credit business.

The loans granted by the Bank and outstanding on 1 January 1933 amounted to a total sum of 5,317 million levas, this being an increase of 261 millions on the loans outstanding on 1 January 1932. The loans granted to co-operative societies alone amounted to more than 1,665 million levas (1).

(1) Dr. N. SACAROFF, *Governor of the Agricultural Bank of Bulgaria*: *L'organisation du crédit agricole en Bulgarie et le rôle de la Banque Agricole de Bulgarie dans la vie économique de ce pays. In L'Est Européen Agricole* (Official organ of the Permanent Committee for Economic Studies of the Agricultural States of Central and Eastern Europe), No. 3, Paris, October 1932. — Do.: *L'activité économique de la Banque Agricole de Bulgarie en 1932. Ibid.*, No. 4, January 1933

The Bank gives credit to 1,626 agricultural Co-operative societies, which contain 232,187 members. Besides the funds obtained from the Bank, these societies have at their disposal their own funds, amounting to 771 million levas and deposits to the amount of 494 millions. The Bank granted to them, during the course of the past year, new credits to the amount of 157 million levas.

The co-operative agricultural credit societies, for their part, advanced to their members, on the guarantee of 235,698 promissory notes, a total sum of 959 million levas

The vine-growers' co-operative societies, numbering 18, received credits amounting to 22 million levas. New credits amounting to 39 million levas were granted to 33 co-operative rose-growers' societies. The Bank had also to intervene in 1932 in the production of cocoons, the price of which, under the influence of the world crisis and of the competition of Asiatic silk and artificial silk, had fallen considerably for two years, obliging the majority of the producers to give up silkworm-rearing. For these reasons the Bank bought 10,500 ounces of eggs, which it distributed amongst the silkworm-rearers. It possesses in 15 centres of production modern cocoon-drying establishments, with a capacity of 750,000 kilogrammes. It has also aided the silkworm-rearers' co-operative societies financially and technically in erecting their own drying establishments with a capacity of 695,000 cocoons. In 1932, the Bank bought almost the whole production of cocoons in the country at fixed prices and organised their drying and sale; they paid to the producers on this account more than 35 million levas.

Lastly, the Bank has helped the tobacco production of the country. On account of the disorganisation of the market, the prices fell appreciably and certain speculative dealers were even able to purchase raw tobacco at prices below the cost of production. To remedy this state of things, the Bank increased its support of the 22 tobacco-growers' co-operative societies and decided to intervene on the market by directly purchasing the product at prices higher than those which had been previously given. In this way, it was able to improve the prices of tobacco, which showed, after its intervention, an increase of 15 to 20 per cent. or even more. During 1932, more than 5,000,000 kilogrammes of tobacco of the 1931 crop had been collected through the medium of the co-operative societies or directly by the Bank. Of this quantity, the Bank purchased directly, at fixed prices, 450,000 kilogrammes, employing about 20 million levas in doing so. For the collection of tobacco of the 1931 crop by the co-operative societies, the Bank granted loans amounting to about 90 million levas, for the purpose of making advances to the producers on delivery of their tobacco as well as for other expenses of handling the tobacco.

It will be seen, then, that the policy of the Bank is directed principally towards reinforcing the agricultural co-operative credit and productive societies, in order that they may organise first the production and then the sale of agricultural products, and, as required, undertake the distribution of short-term credit in the villages.

In regard to the cost of the money, the Bank, in order to relieve the agricultural co-operative societies and the farmers, reduced the rate of interest during the first half of 1931, from 12 to 10 per cent. per annum for mortgage

loans and, on 1 April 1932, a further reduction was made to 9 per cent. For co-operative societies finding themselves in a difficult position owing to unsuccessful business, the rate was fixed at 7 per cent. with a period of ten years for repayment. In general, loans are granted at an interest $\frac{1}{2}$ to 1 per cent. above the interest paid to depositors.

The extremely serious financial crisis which has taken place in the rural economy of the country in recent years, precisely at a moment when it was endeavouring to intensify cultivation, has prevented the Bank from doing a more active credit business. This business, which in the past had as its object the improvement of the rural economy of the country, the increase of the returns from it, and the carrying out of new undertakings of general utility, has had to be reduced, in certain districts, to the grant of pecuniary aid for the purpose of assuring the maintenance of rural properties and of extracting them from the bad position into which they had fallen. It suffices to note that more than 60 per cent. of the agricultural landholders have been obliged to sell their products at a price hardly sufficient to assure the subsistence of their families. The reduction of the farmers' returns renders it, on the other hand, difficult for them to repay the debts contracted in the past. This state of affairs constrained the Bank to look for means of relieving the indebted rural population. It is true that the rural landholders have not all been affected in the same measure by the crisis. The agricultural centres producing only cereals have suffered most, while the crisis was felt comparatively more lightly in the districts of intensive cultivation. The Bank has not failed to grant to a large number of farmers loans preferably intended for the repayment of debts contracted with private creditors on onerous terms, for the conversion of short-term debts into long-term debts, for the adaptation of production to the new requirements of the market, as well as for obtaining supplies of foodstuffs for the families of the borrowers and of feeding stuffs for their live stock.

But the precarious situation of the farmer is not due to the obligations assumed towards the Agricultural Bank of Bulgaria, but rather to the debts contracted with usurers and private creditors. These debts, the conditions of which were extremely onerous, are such as completely to absorb the returns of the landholders and even to render it problematical whether they could continue to farm their lands.

The position of indebtedness for the 750,000 agricultural holdings was as follows at the end of 1930.

(1)	Direct debts to the Agricultural Bank . . .	2,613,781,509	levas
(2)	Debts owed by co-operative societies to the Agricultural Bank	1,136,581,577	»
(3)	Direct debts to co-operative societies in re- spect of money advanced out of their own funds	494,986,241	»
(4)	Debts to individuals and to private banks, about	1,500,000,000	»
	Total agricultural indebtedness . . .	5,745,349,327	levas

The average debt per rural holding was thus 7,619 levas and per hectare of cultivated land about 1,511 levas.

Since the end of 1930, the indebtedness, in consequence of the economic and commercial situation, has considerably increased, and it is at present estimated as being about 12,000 millions of levas (1).

The State has not remained indifferent to the situation of the indebted farmers and by the Law of 16 April 1932 (2) it suspended up to 1 December 1932 the levying of distress on landholders occupying not more than 25 hectares in respect of debts contracted prior to 1 January 1931 and not exceeding 200,000 levas, plus the amount of debts, if there are any such, contracted for the purchase of implements, up to 25,000 levas.

The credit situation remains always very critical because, on the one hand, as we have seen, there is a vast number of heavily indebted farmers and, on the other hand, the capital at the disposal of agriculture is far from even the minimum required.

According to recent inquiries, the programme for the improvement of Bulgarian agriculture would include, amongst other matters : (1) The carrying out of important works, such as irrigation, drainage, etc. ; (2) the improvement of the quality of tobacco ; (3) the intensification of the cultivation of certain industrial plants, such as hemp, flax, colza, etc. ; (4) the increase of the cultivation of fruit trees, vines and vegetables, so as to be able to compete on foreign markets by reason of the quality and prices of the products ; (5) the increase in the cultivation of forage crops for the same purpose ; (6) a greater extension of agricultural industry (hemp, flax, preserved vegetables, preserved fruit, etc.).

It is considered advisable that the farmers should more and more organise their farms on the lines indicated, by transforming them and cultivating new crops more adapted to the requirements of the market. To attain the results contemplated funds are necessary, and these at present are wanting. The State no longer has at its disposal financial resources which would enable it to develop the country by great irrigation and drainage works. These resources must, therefore, come from outside, in the form of loans, and, in order to facilitate repayment, in the form of long-term loans.

CZECHOSLOVAKIA.

In Czechoslovakia the organisation of agricultural credit comprises several types of institution, the most important of which is represented by the co-operative credit societies. In fact, out of 8,543 financial institutions in the country on 1 January 1931, 7,409 were co-operative credit societies, thus classified : 4,269 Raiffeisen co-operative societies (known as Kampeličky societies), 1,968 Schulze-Delitzsch loan banks and 1,172 other co-operative credit societies.

(1) T. C. RAPP, M. C. : *Economic Conditions in Bulgaria* (Dated April, 1932). Department of Overseas Trade. No. 517. London, 1932.

(2) *Textes législatifs* published by the International Institute of Agriculture. 1932 Series, No. 12.

The Kampeličky societies grant to their members, who are small farmers and small industrial workers in the villages, loans in cash for working capital, intended for the purchase of seeds, of fertilisers, of live stock, for the electrification of the country, for the payment of the property tax, etc. These loans are given on agreements for periods up to two years, which may be prolonged up to four years. For this purpose the societies employ a part of their deposits which, at the date mentioned, amounted to 5,246 millions of Czechoslovak crowns. These co-operative societies supply particularly circulating capital, but they are adapted to the needs of small and medium-sized farms, as they also grant loans for longer periods for the purchase of parcels of land for rounding off a property, for the construction of light buildings, for the execution of repairs and, generally, for all the lesser works of agricultural improvement (1). The operations of these banks are limited to a commune or to several adjoining parishes. The network of such banks is almost complete in Bohemia, in Moravia and in Silesia. The Schultze-Delitzsch loan banks and the district agricultural banks grant loans on bills for three to six months. The loans may be renewed for a period of three years from the day on which repayment first became due.

Credit for working capital, given on agreements or in the form of overdrafts, amounted on 1 January 1931 for the different classes of institutions which carried on such business, to 6,948 millions of crowns, of which 2,969 millions had been supplied by the Kampeličky societies.

Apart from the forms of short-term credit above described, which are the most frequent, recourse is sometimes had to credit in the form of advances on the supplies of sugar-beet to the sugar-factories and of advances on the security of growing crops (Slovakia, Sub-carpathian Russia). The latter class form the so-called green credit; immediately delivery of the crop is made, these loans are liquidated. Only exceptionally are they prolonged.

Short-term credit is also supplied to farmers in the form of goods, such as fertilisers, seeds, implements, etc., by the co-operative stores. These loans are liquidated, as a general rule, after the harvest by the delivery of products to the co-operative society; but, as these credits would immobilise a large part of the circulating capital of the co-operative societies, the societies draw bills on the different debtors. The bill bears the signature of the debtor of the co-operative society as the drawee, and that of the co-operative society as the drawer; it is issued to the order of the drawer, or in favour of the Central Purchasing Association of the co-operative societies; endorsement by the last-named makes it possible to discount the bill at the Bank of issue. This Bank, in accordance with Article 14 of the agreement between the Government and the *Národní Banka Československa* and, on condition that the liquid assets of the Bank and the monetary interest of the State allow it, grants "trade and production credit" on bills for more than 92 days, but for not more than 182 days. These bills are accepted as security for loans at a rate which, in normal times, will be only 1½ per cent. above the rate of discount. By this system, the bills of the co-oper-

(1) DR. LADISLAV F. DVORÁK: La coopération agricole tchécoslovaque. Union centrale des coopératives agricoles. Prague, 1931.

ative societies have acquired the character of commercial bills and there has been opened to agriculture a source of credit on conditions adapted to the nature of agricultural undertakings.

Medium-term credit, intended specially for the purchase of more costly machines and plant, takes approximately the same forms as short-term credit, in so far as those forms admit of prolongation, that is, the form of loans renewable up to a period, for example, of four years or more, and even in the form of bills. A medium-term loan may also be granted in the form of an overdraft on current account, usually secured by a mortgage or by an inscription in the land register; such a loan is granted for a year and can be renewed. In Slovakia, co-operative credit societies grant medium-term loans, the bills drawn being inscribed in the register of mortgages.

In addition to the organised credit for working capital, of which we have spoken, there is unorganised credit for working capital, granted to farmers by private individuals, which is, in large part, a sort of credit between relations. It is estimated that the credit of this kind represents 15 or even 20 per cent. of the total amount of credit for working capital. It is particularly frequent in Slovakia and in Subcarpathian Russia.

Lastly, long-term agricultural credit is supplied in the form of mortgage credit either on the basis of the issue of bank bonds or as cash credit supplied by various institutions, which utilise for the purpose a part of the deposits entrusted to them. The nature of these deposits determines to what extent these institutions can invest their resources in long-term loans. Now, as three fourths of their deposits consist of family savings, or the savings of undertakings, deposited for long terms, these institutions can, without compromising their liquidness, employ a large proportion of their deposits in making long-term mortgage loans.

Mortgage loans in the form of bonds are granted mainly by the provincial banks of issue, which are public banking institutions. We may mention the Mortgage Bank of Bohemia (Prague), authorised to issue bonds up to a total amount of 20 millions of Czechoslovak crowns, the *Zemská Banka* (Prague), which is of interest to agriculture on account of its issues of improvement bonds, the *Hypotéční a Zemel'ská Banka Moravská* (Mortgage and Agricultural Bank of Moravia), which is particularly of interest to agriculture on account of its issues of mortgage bonds, for improvement loans and, in part, for loans for the electrification of the country districts; in Silesia the *Slezský Pozemkový a Komunální Uvěrni Ustav* (Communal and Land Credit Institution of Silesia), and the *Zemský Maloroľnícky Fond Uvěrni v Praze* (Provincial Credit Fund for Small Farmers, Prague) which was established to supply personal credit to small farmers in Bohemia, but also grants credit on favourable conditions to agricultural co-operative societies and to district agricultural banks, from which it receives deposits on current account.

The mortgage banks have been obliged to adapt to present conditions the rules for determining the price of real property; the price is no longer determined mechanically as a multiple of the cadastral income, but by a strict valuation specially made in each case. For agricultural property, loans must not amount

to more than two thirds of the estimated value, not taking into account the value of the farm buildings.

As to the rates of interest, it is the Kamyčický societies which make short-term loans to farmers at the lowest rates; they usually charge interest at 5½ to 6 per cent. The rate charged by other co-operative credit societies for loans on agreements and of bills varies, on the average, in the western half of the State, between 6 and 7 per cent. and in the eastern half between 8 and 10 per cent. The district agricultural banks for the most part lend at between 6 and 7 per cent. The savings banks charge on mortgage loans interest at 6 to 6½ per cent. and for short term credit in the form of bills, about 7 per cent. The provincial banking institutions lend at the following rates: the Mortgage Bank of Bohemia, for loans on the security, of agricultural land, 6¼ per cent.; the Zemská Bank, for improvement loans, 6½ per cent.; the commercial banks, which only exceptionally do agricultural credit business, lend at about 10 per cent. the Central Social Insurance Fund for Workers and the General Pensions Institute charge for mortgage loans on the security of first mortgages 5¼ to 6¼ per cent.

The problem of the indebtedness of the farmers deserves special attention. According to statistics published by the State Office of Statistics, the total amount of the debts secured by mortgage on real property was, on 1 January 1930, in Bohemia, Moravia and Silesia, 30,310,441.000 crowns as compared with 27,018-869,000 crowns at the beginning of 1929, an increase of 3,291,572 000 crowns.

The total mortgage debts (in millions of Czechoslovak crowns) affected:

	1 January 1929	1 January 1930	Difference
(1) Properties inscribed in the provincial registers	1,306	1,348	+ 42
(2) Properties mainly within urban boundaries	11,029	12,419	+ 1,390
(3) Properties mainly in country districts	14,451	16,313	+ 1,862
(4) Mines	232	230	— 2
Total	<u>27,018</u>	<u>30,310</u>	<u>+ 3,292</u>

The figures relating to property situated mainly within urban boundaries included also debts secured by mortgage on agricultural properties in the towns and, on the other hand, the figures relating to property situated mainly in country districts includes also debts on the mortgage of properties urban in character (factories, hotels, etc.) The debts on the mortgage of properties urban in character but situated in the country are much larger in amount than the debts on agricultural properties situated in the towns. It is difficult to determine the amount of this excess. Account must also be taken of a certain not insignificant part of the debts which has already been paid off without the inscriptions having been removed from the registers of mortgages. The modification to be made in the figures for these two reasons is estimated by experts at from 7,000 to 8,000 millions of crowns.

Adding to the amount of the debts on 1 January 1930 under items 1 and 2, which make a total of 17,661 millions of crowns, the increase for the years 1930, 1931 and 1932, which amount to 5,700 millions of crowns, we obtain as the mortgage indebtedness on 31 December 1932, 23,361 millions of crowns which, after the deduction to be made as above indicated, becomes about 15,360 millions of crowns.

In Slovakia and Subcarpathian Russia the new mortgage indebtedness in 1929 was 700 million crowns, of which about 500 million, that is 70 per cent., affected farms. If we assume the same percentage of increase as in Bohemia, Moravia and Silesia, we obtain, for agricultural properties, taking 10 per cent. as their share of the total mortgage debts, the sum of about 4,500 million Czechoslovak crowns. Adding to this the annual increases of 1930, 1931 and 1932 amounting to 1,500 millions we obtain, as the mortgage indebtedness on 31 December 1932, 6,000 millions of crowns. If we take account, however, of the two corrections indicated above, it may be estimated that the mortgage indebtedness in Slovakia and Subcarpathian Russia was about 4,500 millions of crowns.

It appears from what precedes that the indebtedness affecting agricultural property in Czechoslovakia was, on 31 December 1932, about 20,000 millions of crowns. Dividing this sum by the total area of agricultural and forest land, that is, arable land, including hop gardens, permanent meadows, vineyards, forests and gardens, it results that the average indebtedness per hectare is 1,700 crowns.

Moreover, the State Land Office, in connection with the carrying into effect of the agrarian reform, has granted to the farmers, notably in Slovakia and Subcarpathian Russia, land credit and credit for building purposes to the amount of 100 million crowns. The farmers who have obtained land as a result of the agrarian reform are, moreover, indebted to the State Land Office to the extent of about 700 million crowns in respect of payment for the lands assigned to them.

Making the total of all the credits of which we have spoken, the following statement may be made of the total agricultural indebtedness for the whole of Czechoslovakia :

(1) Mortgage indebtedness.	about 20,000 million crowns
(2) Organised credit	» 7,000 » »
(3) Other credits	» 1,000 » »

Total . . . about 28,000 million crowns

In this total, unorganised credit is not included.

The long continuance of the crisis has almost destroyed the profit-earning capacity of agriculture, has exhausted financial reserves and has caused the extraordinary indebtedness of the farmers above indicated. The disparity between the index of agricultural receipts and that of costs of production is very illuminating; the latter exceeded the former, at the beginning of 1932, by 57 per cent. The returns of the farmers have declined steadily since 1927.

In facts, the return per hectare, in Bohemia, for example, according to the calculations made by the State Institute of Rural Accountancy and Rural Economy—return representing the sum of the net profit of the undertaking and of the remuneration of the labour of the farmer and his family—amounted in 1925 to 1,893 Czechoslovak crowns per hectare, in 1926 to 1,896 crowns, in 1927 to 2,068 crowns, in 1928 to 1,843 crowns, in 1929 to 1,391 crowns, and in 1930 to 996 crowns; in 1931 the fall in prices was even more marked.

Nor is the capital market favourable.

From Report No. 74 (December 1932) of the National Czechoslovak Bank it results that the demands for credit made to the financial institutions could, in November and the beginning of December 1932, only partially be satisfied, and Report No. 78 (April 1933) notes that the need of long-term credit remains considerable, but the money market cannot satisfy them.

In this situation, energetic action was indispensable to alleviate the burden of interest to be paid and to facilitate the grant of further credits to ensure the continuance of production. In particular the necessity of helping the farmers overburdened with debts by a special grant of credit was recognised (1).

To satisfy these requirements, a regulation of the rates of interest, on the basis of the Law of 2 March 1933, No. 44, and in accordance with the Governmental Decree of 23 March 1933, No. 52, has been adopted and carried out in virtue of an agreement which took place in the Advisory Committee on financial and banking questions, and was embodied in the Government Order of 12 April 1933, No. 59. The new regulation, which came into force on 1 May 1933, fixes maximum rates of interest both on deposits and on loans, varying according to the province and the kinds of deposit or loan.

A bill recently presented to the Chamber by the Government amends the rules relating to judicial distraint, by extending the principles in force in the western provinces (the so-called historic countries) also to Slovakia, where, in consequence of the system in force, a vast number of sales of real property and even of movable property, has taken place without any reserve price being fixed, and this, in present circumstances, might bring about the complete ruin of the debtors. According to the new bill, the minimum bid throughout the whole territory of the Republic in sales by auction must not be less, for movable property, than half, and for real property (houses and land), than two thirds of the estimated value. Only in certain regions, where particular conditions would require it, would the Government be authorised to fix the minimum bid for movable property also at two thirds.

These are the new principles of credit policy in Czechoslovakia, principles aiming at introducing a special financial system for agriculture, which would, through the renewed confidence of the depositors, tend to lower the rates of interest charged by the Banks, thus ensuring cheap credit for agriculture which would enable the economy of the farms to be brought back gradually to a state of equilibrium.

(1) BRDLÍK Prof. Ing. VLAD.: La crise agricole en Tchécoslovaquie. *Société d'Études et d'Expansion*. Bulletin périodique, No. 85, Liège, June 1932.

GREECE

Agricultural credit was almost unknown in Greece until 1915, except in the new provinces, where there existed an organisation that was incomplete and insufficient for the needs of agriculture. From 1915 to 1929, that is, before the establishment of the Agricultural Bank, the National Bank of Greece had been entrusted by the State, under an agreement signed on 6 December 1914 and ratified by the Law of 20 February 1915, with the conduct of this form of credit business. But the development of Greek agricultural economy in recent years rendered necessary the establishment of an institution of which the specialised services would be in a position to supply the new and manifold needs of the farmers. In particular the agrarian reform and the settlement of refugees gave rise to a large number of small peasant farms, which it was necessary to equip and to support economically to enable the land to be farmed ; in addition, the extension of certain crops, especially tobacco, required large capital and constant assistance.

The Agricultural Bank was established, as an independent institution of public utility, to supply this assistance, by means of an agreement between the State and the National Bank, ratified by Law No. 4,332, dated 27 June 1929, and amended by Law No. 4,454, dated 9 December 1929. Its objects are :

(1) To grant loans for short, medium and long terms to farmers and to agricultural co-operative societies and in general, to invest its capital productively in agriculture ;

(2) To follow closely and to direct the work of the co-operative societies and to help their development ;

(3) To take measures calculated to improve the general condition of agriculture by spreading a knowledge of scientific methods and of agricultural technique :

(4) To assist the marketing of agricultural products and encourage their consumption in the country and abroad, and to take steps for steadying the prices of agricultural products.

On 31 December 1932 the Bank had at its disposal capital to the amount of 1,173,571,961 drachmas, formed to a large extent by a State endowment, and by 316,946,830 drachmas of deposits.

In spite of the greatness of its objects, it has succeeded, within the limits of its available funds, in accomplishing them, by granting to agricultural land-holders short-term credits (that is, credits for about 9 months) at a rate of interest varying from 6 $\frac{1}{2}$ to 8 $\frac{1}{2}$ per cent. for advances on crops and from 7 $\frac{1}{2}$ to 9 $\frac{1}{2}$ per cent. for loans on the pledge of products. In its efforts to encourage the agricultural co-operative societies, the Bank has allowed to them a rate of interest 1 per cent. lower than the rates mentioned, and, in the case of unions of co-operative societies, the rate of interest charged is 1 $\frac{1}{2}$ per cent. less.

During the year 1930, 14,814,000 drachmas were assigned to medium-term and long-term credit ; during 1931, 36,000,000 drachmas, and during 1932, 21,500,000 drachmas.

The following table gives an idea of the short-term credit business done during the years 1930, 1931, and 1932.

	1930 Drachmas	1931 Drachmas	1932 Drachmas
Loans on personal security :			
To co-operative societies . . .	638,055,651	609,986,245	519,160,560
To individual farmers	259,442,739	322,431,119	316,246,535
Total . . .	897,498,390	932,327,364	835,407,095
Loans on the pledge of products :			
To co-operative societies . . .	284,520,385	194,623,919	208,197,124
To individual farmers	107,086,520	90,973,817	61,431,836
Total . . .	391,606,905	385,597,736	269,628,960

From this table it will be seen that of the total credits distributed, the greater part was granted on personal security.

The decrease of about 100 millions in the loans in 1932 as compared with those of 1931 was due, on the one hand, to the excellent grain crops of 1932 and, on the other hand, to the appreciable decrease in the cultivation of tobacco due to the low price of this product.

The total sums due to the Bank on 31 December 1932 in respect of loans on personal guarantee, after deduction of sums repaid, amounted to 793,154,000 drachmas. The loans on the pledge of products, of which the balance outstanding on 1 January 1932 was 466,000,000 drachmas, amounted, taking account of loans granted during the year (270,000,000 drachmas) and of repayments (342,000,000 drachmas), to 394,000,000 drachmas on 31 December of the same year. The greater part of these loans (210,000,000 drachmas) was granted on the pledge of tobacco.

For the years 1930 and 1931 we give a statement showing how the loans on personal guarantee were divided according to the kind of crops :

	1930 Drachmas	1931 Drachmas
Cereals	316,777,378.60	361,848,931.40
Vines	223,321,613.65	41,317,626.85
Raisins		149,448,664.85
Tobacco	219,968,525.35	174,895,120.70
Olives	26,903,330.75	28,385,864.25
Cotton	16,508,278.00	23,239,217.50
Market garden crops	6,169,181.55	7,453,687.60
Animal husbandry	28,276,208.35	41,863,481.40
Chemical manures	21,240,673.95	34,265,548.42
Miscellaneous	38,333,200.00	69,609,239.16
Total . . .	897,498,390.20	932,327,364.13

In addition to making advances directly to the farmers, the Bank helps agriculture by financing organisations that encourage the development of agricultural production.

It allocated, in 1932, 52,000,000 drachmas for the purchase of tobacco in the Old Kingdom of Greece, 30,000,000 drachmas for the purchase of barley, 18,000,000 drachmas for the purchase of oil, 500,000,000 drachmas for the purchase of home-grown wheat, etc. The total sums granted by the Bank in 1932 amount to 1,730,000,000 drachmas as compared with 1,442,274,722 in 1930 and 1,603,113,614 drachmas in 1931.

It may be noted that the technical services of the Agricultural Bank study the agricultural situation in each region and exert their influence in order to impose scientific methods of cultivation with a view to raising the standard of individual agricultural economy. Different varieties of seeds have been imported in large quantities and distributed to the growers. High quality live stock has been imported in order to be acclimatised. Stockbreeding on a large scale has been encouraged by facilities to breeders to enable them to purchase grazing lands and to erect shelters. Vineyards destroyed by phylloxera have been replanted. Orchards have been planted, beekeeping has been strongly encouraged, etc. Even more important works, such as the draining of marshes (90,000 stremmas (1) near Arta, 200,000 stremmas in Thessaly, etc.), drainage of valleys, and systematisation of watercourses have been undertaken. The Bank also bought directly from the growers quantities of barley and rice in order that they might not be obliged to proceed to untimely sales by which they would have suffered losses, and, in the early months of 1932, the Bank had to distribute maize on credit to the value of 66,000,000 drachmas, to relieve the critical situation of the producers in certain provinces and to save the live stock, and sometimes even the inhabitants, from starvation.

But the difficulties of agriculture remain always very great, particularly because the expropriation of lands generally had to be done in haste, owing to the influx in 1922 of a million and a half of refugees, of whom 60 per cent. belonged to rural populations. Their settlement, in spite of tremendous efforts on the part of successive Governments from 1922 to the present day, had to be carried out in a precarious way. Besides the refugees, 96,000 families, particularly amongst the populations of Thessaly and Macedonia, as well as families of ex-service men, have been settled on expropriated lands. On 1,500,000 hectares expropriated, about 160,000 families of refugees and 96,000 families of the Old Kingdom have been settled. All this work still remains incomplete. The Bank which, as far as short-term credit is concerned, succeeds in placing at the disposal of the farmers sums that are barely sufficient, found itself compelled, in the matter of medium-term and long-term credit, to restrict its business for want of means. From the figures relating to the loans made to farmers by the Bank it appears, in fact, that the medium-term and long-term loans represent only a small proportion of the total investments made. The proportion in no way corresponds to the amount of the credits of this class of which

(1) 1 stremma = 1/10 of a hectare

agriculture has urgent need in order to increase the gross return of the small landholders and to attain the following fundamental objects: (1) Consolidation and rearrangement of lands; (2) carrying out of works for the improvement of installations; (3) carrying out of works for the improvement of lands; (4) increase of farming capital, in order to enable farmers to undertake, at the same time as the cultivation of the land, stockbreeding, poultry-keeping, silkworm-rearing, beekeeping, domestic industries, etc.

Banking experts estimate that the needs of Greece in respect of medium-term and long-term credit amount to at least ten million dollars. To meet the most pressing necessities in this matter, in view of the shortage of capital from which the agricultural credit institutions of the country are suffering, credits from foreign sources seem, in present circumstances, indispensable.

On the other hand, the importance of the part played in Greek economic life by the farms of the refugees, the returns from which are sufficient neither to maintain intact their productive capacity nor even to assure the maintenance of the farmers' families, is apparent from the very number of these farms which, in June 1931, amounted to 232,512, with an area of 14,762,555 stremmas. The refugee or native farmers newly settled represent about a third of the farms of the whole of Greece and occupy 39 per cent. of the total cultivated area.

Now the economic difficulties arising from the fall in the prices of agricultural products and from successive short crops, resulting from unfavourable weather conditions, have brought about, for the small landholders, a very critical position; they have exhausted all their savings; their property is burdened by mortgages and runs the risk of foreclosure on the part of their creditors. It is not possible for them, in fact, to release themselves from the debts contracted at a time when agricultural prices were much more remunerative than at present.

The total indebtedness of the farmers amounted, on 31 December 1930, to 8,474,363,348 drachmas (1), as appears from the following figures:

	Drachmas
Debts to credit institutions under the control of the State	1,677,302,556
Debts incident to the expenses of settling refugees in the rural districts and to the lands and dwelling-houses assigned to them	3,757,581,000
Debts for lands assigned to native farmers directly settled by State action	804,372,018
Taxes due to the Treasury	235,107,774
Private debts of the farmers, about	2,000,000,000
Total . . .	8,474,363,348

These debts represent about 50 per cent. of the average annual return from agriculture.

(1) J. S. CARAMANOS, *Director-General at the Ministry of Agriculture: Greece*. In: "The Agricultural Crisis". Vol. I, League of Nations. Economic Committee. Geneva, 1931.

The State has been obliged to grant a moratorium to the farmers and a Law of 4 January 1930 suspended the levying of distress on rural immovable property for debts contracted by farmers for the cultivation of their lands. A bill on the settlement of agricultural debts was presented on 8 April 1933.

The aggravation of the agricultural crisis in Greece being due particularly to the economic instability of the major part of the agricultural population, resulting from the inadequacy of the returns, the effectiveness of the efforts made to overcome the crisis depends on increasing the average level of agricultural returns. Now, it only seems possible to obtain this increase if the farmer is provided with sufficient funds in the form of medium-term and long-term credit. As long as these credits are not forthcoming, the country will not be able to consolidate these farms of recent formation, and this is essential, in the opinion of the Government, not only to improve the conditions of national production, but also to ensure the maintenance of social peace (1).

HUNGARY.

Agricultural credit in Hungary takes the three forms of short-term, medium-term and long-term credit. The first is generally granted on the security of bills becoming due in three to six months, ordinarily bearing the signature of two or three sureties. It is mainly granted by the co-operative credit societies affiliated to the Central Mutual Credit Society of the Kingdom of Hungary. Each time that a co-operative credit society affiliated to this central institution presents a bill to it to be rediscounted, the debt based on the bill must also be guaranteed by the member society which has made use of rediscount credit.

Medium-term credit is organised, in the majority of cases, on the basis of bonds, generally against mortgage guarantee, for a period of one, two, or sometimes five years. Loans of this kind contracted after the war were, to a large extent, provided by foreign capital and granted by the Central Mutual Credit Society, which has just been mentioned. In regard to these credits, there is a considerable tendency to supervise the employment of the sum lent.

Long-term credit includes different types:

(1) Usually the loan is based on land bonds, the property which is being farmed constituting the security. The loan must not exceed 50 per cent. of the estimated value of the land mortgaged and, in the case of a forest or a vineyard, must not exceed one third of the estimated value (Laws XXXVI of 1876 and VII of 1928).

(2) Special provisions exist for long-term loans to be granted to societies for hydraulic works or for land improvement. The amount of the credits which can be granted to these societies is regulated by the law in such a way that the mortgage charge can only in exceptional cases amount to 50 per cent. of the estimated value of the property comprised in the sphere of operations of the society which has obtained the loan. The part of the loan proportionately

(1) E. J. TSOUDEROS, *Governor of the Bank of Greece*: "The Economic Situation in Greece and the Bank of Greece in 1932." Bank of Greece, Athens, 1933.

affecting each of the properties represents the mortgage on the property, and the accessory charges burdening the property are assimilated, in regard to their collection, to the public taxes. The loans of the type indicated serve as the basis for the issue of land bonds, and the money raised thereby is devoted to carrying out works for the regulation of watercourses or of land improvement (Law XXX of 1889).

(3) Loans based on bonds are also granted to encourage and to finance land settlement, the subdivision of lands, works for the regulation of watercourses, and land improvement. These loans may amount to as much as 75 per cent. of the property mortgaged, except in the case of loans for subdivision of land, which must not exceed two thirds of the estimated value.

In regard to loans of the first and third kinds, complete amortisation takes place usually in 35 years, sometimes in 45 years. Since the war, no loan of the second type has been granted, for the need of this kind of credit has been provided for out of State funds.

The issue of land and mortgage bonds in respect of loans of the kinds above indicated can only be made when the loan on which the issue is based is inscribed in the land register relating to the property serving as security, or in regard to the second type of loan, when the loan on which the issue is based has, in fact, been paid over.

(4) The Central Credit Society has adopted a special type of loan, guaranteed by a mortgage redeemable in ten years. In this type of loan interest alone is payable in the first five years, amortisation only beginning in the sixth year.

(5) Mention must be made, in the last place, of the carrying out of the agrarian reform (1), in its financial aspect. From the beginning it was recognized that immediate payment for the lands could not be demanded from the new owners, for, in the majority of cases, they did not possess any capital. Neither at the time of carrying out the reform nor later were credit conditions such that they would have been able to obtain, through private channels, credit on reasonable terms to pay the price of the expropriated lands. The intervention of the State seemed unavoidable. Owing to the social character of the reform and the monetary conditions of recent years the State was constrained to undertake the part of intermediary. In 1928 it concluded an agreement with the Swedish Match Cartel, under which it received a loan of 36 million dollars for financing the agrarian reform on terms equivalent to a rate of interest of $5\frac{1}{2}$ per cent. For carrying out the reform an organisation, co-operative in form, was expressly established and was placed between the old and the new proprietors, cancelling the direct relations between the two parties. The State, or rather the co-operative society acting for the State, pays to the old landowner the price of the expropriated lands, and it is to the co-operative society that the new owner pays the amortisation instalments.

(1) See IRRIG Dr. K.: *Agrarian Reform in Hungary*. *Monthly Bulletin of Agricultural Economics and Sociology*, Nos. 11 and 12, November and December 1931. International Institute of Agriculture, Rome.

The expropriated owners obtain an indemnity, the amount of which is established, either by judicial process, or by the calculation of the administrative authority. In this latter case, the factor which serves to determine the amount of the indemnity is the net return indicated by the land register serving as basis for the assessment of the land tax; for each pengő of cadastral net return to be considered, an indemnity of 60 pengős is payable. The persons to whom lands are granted repay by instalments extending over 52 years the indemnity or purchase price to be paid for the property in question. The annual amortisation payment is equal to 5.4 per cent. of the purchase price and is payable in four equal parts. Now, as the person who has obtained land is not in any juridical relation with the expropriated owner, whilst both have entered into a juridical relation with the financial institution to which the settlement is entrusted, the purchase price is transformed, for the person to whom the land has been granted, into a loan. He gives a mortgage on the land assigned to him in the course of the agrarian reform. This charge is also guaranteed by inscription in the land register.

To facilitate the opening of credits in favour of agriculture, the right has been created by Law XXII of 1930 to pledge cereals (wheat, rye, meslin and barley), stored in the growers' barns or in elevators belonging to storage undertakings, but exclusively for the purpose of guaranteeing short-term loans. The law limits the classes of creditors in favour of whom such a pledge may be given. The pledge can only be legally given by means of a public act or by an act under private seal and must be inscribed in a special register kept at the *mairie*. If the giving of this pledge is communicated to the insurer, it extends also to the sum which the insurer will have to pay in case of damage. If the debtor fails to repay the loan at the due date, the creditor can sustain his rights in an action at law; the debtor who acts in bad faith is liable to very heavy penalties.

The usual rates of interest charged to farmers in Hungary are as follows:

- (1) For short-term loans, from 7 to 12 per cent.
- (2) For medium-term loans, from 7 to 8 per cent.
- (3) For long-term loans based on land bonds, from 7 to 7 ½ per cent.

Four large institutions, co-operative in form, are specially engaged in supplying credit to agriculture: the Central Mutual Credit Society, the Land Credit of Hungary, the Land Credit Institution for Small Landowners, and the Association of Hungarian Land Credit Institutions. These institutions are subject to the Government. As their work is of public interest, the Treasury has contributed to the formation of their capital. They have also benefited by exemption to a considerable extent from taxes and fees. Their principal task, as we have said, is the negotiation of long-term redeemable loans and the issue of land and other bonds on the basis of such loans. From the point of view of agricultural credit the financial institutions organised in the form of limited liability companies have a certain interest in so far as they dispose of sufficient capital and include in their business the issue of land bonds as well as the granting of long-term redeemable mortgage loans which serve as basis for the issue of bonds.

The increasingly difficult situation, from the point of view of credit, in which the farmers find themselves as a result of the fall in the prices of agricultural

products clearly appears from the reports of the banks. During the year 1932, it is remarked in the report of the Land Credit of Hungary, the tendency to decline, still more accentuated than in the previous year, has had the consequence that the rural classes, in spite of their most earnest efforts, were hardly in a position to meet their financial engagements. The returns from agriculture were reduced to an unprecedentedly low level, and this state of affairs had particularly serious consequences for those who had contracted debts in times when the prices on the world market were appreciably higher than they now are. The depression of the home market and the international market had a marked effect on the work of the Land Credit, which was greatly restricted (1). The same was the case for the Central Mutual Credit Society, the co-operative societies affiliated to which, numbering 1,013 at the end of 1930 and operating in 2,618 out of the 3,433 communes of Hungary, granted, in particular, with a view to attenuating the effects of the crisis, export credits to the producers, on favourable terms and at advantageous rates. The capital employed for this purpose by the Central Mutual Credit Society amounted in 1930 to 68,289,692 pengös. The co-operative credit societies further intensified their action in organising the marketing of products; owing mainly to this action, as well as to the efforts of "Futura," a commercial share company formed by the central co-operative societies for the sale of goods, the farmers were saved from even greater losses than those which they actually incurred. The products marketed through the co-operative societies, including the business directly transacted by the "Futura," amounted to about 1,200,000 quintals to a value of 20,000,000 pengös.

In regard to the Land Credit Institute for Small Landholders, the object of which is to procure credit, at moderate rates of interest for this class, the position of its loans at the end of 1931, as compared with the position at the end of the previous year, was as follows:

	31 December 1930 Pengos	31 December 1931 Pengos
Loans in mortgage bonds (pengös) at 7 ½ per cent.	410,462.00	249,751.37
Loans for 5 years (pengös)	1,301,290.00	478,900.00
Mortgage loans (pengös) at 8 per cent.	5,817,520.00	10,179,656.00
Provisional loans (pengös)	792,967.00	828,922.00
Loans in mortgage bonds (dollars) at 7 per cent.	24,985,150.33	24,889,485.03
Loans in mortgage bonds (dollars) at 7 ½ per cent.	335,319.39	2,237,362.32
Parochial loans in bonds, et 7 per cent.	7,016,341.71	6,964,022.83
Advances of money for the purchase of land	154,107.11	144,641.37
Loans on property situated at the frontiers	930,562.83	915,287.94
Loans on the security of promissory notes	20,823,761.58	27,016,193.27
	62,567,481.95	73,904,222.13

(1) In 1932 no redeemable loan was granted; 159 short-term loans guaranteed by mortgages were granted to a total amount of 3,413,849 pengös.

From this comparison it appears that there was an increase in the amount of the loans outstanding at the end of 1931 over the amount outstanding at the end of 1930 of 11,336,740 pengös. In consequence of the difficult economic situation, the Institute was only able to grant long-term loans, so much demanded by the farmers, to a very small extent. It discounted, in 1931, 47,973 agricultural bills of the provincial institutes, for a total sum of 105,067,424 pengös.

Better to indicate the position of the farmers we now reproduce some figures regarding the mortgage charges on landed property at the end of 1931 (1), fixing our attention on the most characteristic details of this important phenomenon. The gross charges, that is, without taking account of the amortisation payments effected, at the end of the year and the annual increase of these charges, in millions of pengös were as follows from 1925 to 1931:

Year	Total at the end of the year (2)	Annual increase (2)
1925	109.9	—
1926	348.4	238.5
1927	677.9	329.5
1928	1,034.5	356.6
1929	1,567.0	532.5
1930	1,844.6	277.6
1931	2,038.0	193.4

As will be seen, it is since 1926 that large debts have been contracted and it is in 1928 that the total debts contracted during the year reached their maximum, to diminish subsequently from year to year.

The net charges at the end of the year were as follows, in millions of pengös:

Year	Total net charges
1928	950.4
1929	1,393.5
1930	1,570.4
1931	1,716.5

Of the net charges of 1931, 79.4 per cent, were in respect of loans granted by credit institutions, 4.9 per cent. in respect of other loans, and 15.7 per cent were other charges.

After the war, the mortgage debts increased at a rate three times as rapid as before the war.

The aggravation of the situation of agriculture is particularly clearly shown by the numerous inscriptions of mortgage charges imposed as a preliminary

(1) KONKOLY DR. JULES: Les charges hypothécaires des propriétés foncières de Hongrie à la fin de 1931. *Revue Hongroise de Statistique*, No. 11, November 1932. Central Statistical Office of the Kingdom of Hungary, Budapest.

(2) Including loans granted by the Co-operative Society for the Financial Settlement of the Agrarian Reform.

to levying distress, which increased from 13.9 millions of pengös in 1929 to 19.7 millions in 1930 and 27.9 millions in 1931; by the inscriptions for arrears of taxes, which increased from 14 millions in 1929 to 21.2 millions in 1930 and to 27.6 millions in 1931, and by the inscriptions for costs of levying distress and legal expenses, which increased from 2.1 millions in 1929 to 3.1 millions in 1930 and to 3.7 millions in 1931.

According to a recent inquiry regarding loans granted by credit institutions (banks and savings banks, the central co-operative credit society and other co-operative credit societies), the amount of these loans outstanding at the end of 1931 was 1,363 millions of pengös, affecting 577,000 landowners and 59 millions of cadastral arpents (1); 45.2 per cent. of the landowners had obtained loans from these institutions and 37.3 per cent. of the total area of the properties was mortgaged as security for such loans. Half of the small landowners and almost half of the large landowners were indebted to the credit institutions in question. From the point of view of their area, the very small and medium-sized properties were particularly indebted on account of loans of this sort. The major part of the loans granted by the credit institutions consists of loans on the security of bills (631.2 millions of pengös, or 46.3 per cent.) and long-term redeemable loans (623.2 millions of pengös, or 45.7 per cent.). The loans on the mortgage of very small properties are the largest in amount (418.4 millions of pengös, or 30.7 per cent.); those on the mortgage of medium-sized properties come next (258.1 millions of pengös, 18.9 per cent.) followed by those on the mortgage of small properties between 11 and 50 cadastral arpents (256.8 millions of pengös, 18.8 per cent.) and those on the mortgage of large properties (249.8 millions, 18.3 per cent.).

Classifying the loans granted by credit institutions according to agricultural regions, it is found that the properties of the Alföld (the Great Hungarian Plain) are in the most unfavourable situation; they are burdened by 53 per cent. of these loans.

According to the rates of interest charged at the end of the year 1931, the interest due in respect of loans granted by credit institutions may be calculated at 134.2 millions of pengös.

Analysing the class of "other charges," 72.6 per cent. of them burdened small properties of less than 50 cadastral arpents. These properties, which are less burdened than other properties in respect of loans granted by credit institutions are, therefore, in regard to "other charges" in the most unfavourable situation. Whilst the loans in question burden mainly properties of more than 50 cadastral arpents and the medium sized properties, it is the small properties of less than 50 cadastral arpents (and particularly the very small properties) which have the most debts belonging to the class of "other charges."

The properties which have mortgage debts representing more than 40 times the net cadastral revenue have 576 millions of pengös of charges (58.2 per cent. of the total charges), of which the loans granted by credit institutions represent 370 millions of pengös, or 34.9 per cent. of all the loans. The situ-

(1) 1 cadastral arpent = 0.57546 hectares.

ation has, therefore, grown appreciably worse, particularly for the small landowners possessing less than 50 cadastral arpents, on whom the greater part (72.6 per cent.) of the increase in the charges falls.

Information is only available regarding a part of the agricultural charges other than mortgages. These are estimated at 379 millions of pengös, including debts for small sums calculated at between 50 and 60 millions of pengös. Thus, then, the total charges, mortgage and other than mortgage, on Hungarian properties may be estimated, at the end of 1931, at 2,100 or 2,200 millions of pengös. At the end of 1932 this total probably amounted to 2,300 or 2,400 millions.

It is considered that the indebted landholders would be in a less serious situation if they were debtors only of credit institutions. It is because they have several kinds of debts that the majority are unable to meet their engagements; this is why the situation causes anxiety. What particularly aggravates it is the sale of agricultural products at unsatisfactory prices and the difficulty of financing credit on reasonable terms. If the prices of agricultural products were to rise and credit conditions to improve, the situation of agriculture would become better. Until these things take place, the general opinion is that no assistance can be permanently effective.

POLAND

Amongst the institutions (1) which supply credit to agriculture, the State Agrarian Bank fulfils in Poland a particularly important function. It is a Government institution, which is incorporated and has a capital formed by a subsidy from the Treasury amounting, on 1 December 1932, to 130,000,000 zlotys and a reserve fund of 37,935,662 zlotys.

Long-term land credit is one of the principal kinds of business which it carries on. Such credit is granted: (1) in land bonds redeemable in 30 $\frac{1}{2}$ years, issued on the security of first mortgages, for the purchase of lands rendered available by the subdivision of large properties, to occupiers of small and medium-sized holdings, and further for agricultural expenditure such as the erection of dwelling houses and farm buildings, for the repayment of private debts contracted on onerous terms, for the payments of shares of inherited property, for other payments in cases of the division of property, etc.; (2) in bonds, redeemable in 15 years, to irrigation societies, particularly for carrying out improvements such as drainage, drying and irrigation of land, improvement of pasture land, formation and reorganisation of fish-breeding establishments, etc.

The improvement loans granted to irrigation societies are guaranteed in conformity with the provisions of the régime of lakes and rivers, according to which sums due in respect of such loans have the privilege of priority; and the loans granted to individuals are guaranteed by a first mortgage, as also are the loans in land bonds.

(1) In particular the land credit societies, the co-operative societies and the communal loan and savings banks play an important part in the organisation of agricultural credit in Poland and contribute large sums to the financing of agriculture.

The Bank also grants short-term loans, on the security of bills, for a period of several months, to supply the working capital necessary for the development of agriculture, that is loans for the purchase of chemical fertilisers and of selected seeds and loans to producers of selected seeds, butter, eggs, hops, flax, etc. The loans are distributed through the medium of local co-operative banks, communal banks and various agricultural co-operative societies.

Medium-term credit business, as we shall see, is carried on to a very limited extent.

The rates of interest on short-term and medium-term loans, which used to be between 8 and 10 $\frac{1}{2}$ per cent. have latterly been reduced to between 6 $\frac{1}{2}$ and 9 per cent. according to the class of borrower (central co-operative societies, local co-operative societies, savings banks, farmers), in consequence of the reduction in the rate of discount of the Bank of Poland. Certain special loans enjoy more favourable rates of interest, varying from 2 per cent. upwards.

Besides the operations which it conducts on its own account, the Bank conducts other business entrusted to it by the Treasury. Such business includes, in the first place, the granting of loans for purposes of general economic importance in respect of which the Government deems it desirable to grant loans out of State funds on specially favourable conditions. These are loans for the encouragement of stockbreeding, fruit and vegetable growing, consolidation or subdivision of lands, home colonisation, and the reconstruction of farms destroyed during the war. The rate of interest on the loans in question, which used to be between 4 and 5 per cent., according to the purpose for which the loan was granted, was reduced last year to between 3 and 4 per cent., as one of the Government measures for the relief of agriculture.

The task undertaken by the Bank was particularly difficult in 1931. While, on the one hand, the demand for investment loans declined, improvement works becoming less and less remunerative, the crisis, on the other hand, gave rise to new needs, for which considerable means were required. The pressing question of the conversion of debts on burdensome conditions, moreover, became of primary importance, for, as appears from the annual reports of the banks, such debts were ruining even the soundest farms. It was also important to resolve the problem of the dismortgaging of the large properties, basing the solution on a scientifically planned subdivision. The Bank could only meet all these needs to a limited extent, its action being greatly hampered by the want of capital.

What further hampered the business of the Bank in 1931 was the difficulty which it encountered in financing long-term credit operations, on account of the unfavourable situation of the stock market, both in Poland and abroad. The prolonged crisis arrested, in fact, the accumulation of capital and dried up the principal sources from which the Bank relied for funds to be invested in the bonds which it issued. The issue of bonds became, accordingly, greatly restricted. Bonds were only issued to the nominal amount of 22.6 millions, of which only 10.4 could be placed in the country itself, and the Bank was obliged itself to take up the balance of 12.2 millions.

In 1932, the issue of bonds by the Bank diminished still further. The nominal total amount of the land bonds issued was not quite 5.8 millions of zlotys.

In view of the progressive restriction of the issues the Bank, not being able to develop its long-term credit business, devoted its attention particularly to the completion of the loans granted in previous years the object of which was to enable the farmers either to complete the improvements they had begun or to fulfil their engagements regarding transactions for the purchase of land. The total amount of the loans in land bonds paid to the borrowers in 1931 was 22.6 millions of zlotys, as compared with 66.6 millions in 1930 and 109.5 millions in 1929. On the other hand the total amount of improvement loans paid in bonds was only 7.7 million zlotys.

In its anxiety to ensure the safety of the credit, the Bank adopted various measures for adapting the loans to the conditions created by the crisis. The principle was laid down that the loans granted to purchasers of land not exceeding half the estimated value must, at the same time, not exceed half the purchase price. The rules for estimating the value of buildings were amended by laying down that the estimated value must not exceed 75 per cent. of the sum for which the buildings had been insured against fire. Lastly, the minimum applied to investment loans, 2,000 zlotys, 1,500 zlotys and 1,000 zlotys, was also applied to loans for the purchase of land.

The rate of interest payable on the land bonds issued by the State Agrarian Bank is 8 and 7 per cent. and that on improvement bonds 7 per cent. The rate of interest on long-term loans amounts in principle: on loans in 8 per cent. bonds, which are quoted at 94, to 8.91 per cent., and on loans in 7 per cent. improvement bonds, which are quoted at 83.25, to 8.66 per cent.

Recognizing that these rates of interest were too heavy for agriculture, the Bank had already introduced prior to the crisis, for the class of borrowers financially weakest, and particularly for purchasers of lands rendered available by subdivision, a reduction of between 2 and 4 per cent. on the annual rate of interest. The necessary funds for this purpose were drawn by the Bank partly from additional payments received from the Treasury, partly from its own funds.

These concessions proved insufficient when the crisis came, on account of the heavy fall in the prices of agricultural products and the insolvency of the great mass of farmers. Accordingly at the beginning of 1932 the Bank applied the measures more widely with a view to: (1) a new reduction of 2 per cent. in the rate of interest for the benefit of all debtors for loans in land bonds and improvement bonds, making a total reduction of 4 per cent.; (2) the prolongation up to 1 April 1933 or 1 October 1934 of the due date of payments in arrears prior to 1 January 1932; (3) the authorisation to pay by instalment, the whole or part of the interest arrears; (4) the prolongation from 3 to 6 years of the special period during which debtors of loans in improvement bonds are exempt from the payment of instalments of amortisation and pay only the interest, thus prolonging the period of complete amortisation from 15 to 18 years; (5) the grant to debtors of loans in land bonds of a prolongation of the period of amortisation up to 30 years, within the limits of the plan of drawing by lot.

The measures applied by the Bank doubtless represent a considerable alleviation for the farmers, but they only affected a part of the agriculture of the country and could not resolve the whole of the rural financial problem. In face

of a new fall in the prices of agricultural products and an aggravation of the position of the properties in 1932, with a simultaneous diminution of the possibilities of rapidly overcoming the crisis, the general settlement of the question of the indebtedness of the farmers to the long-term credit institutions proved to be necessary, both in the interest of agriculture and in that of the institutions themselves, in order that the farmers might be able to make headway against the present phase of acute depression.

Accordingly, at the end of 1932, the Government presented to the Diet a bill for lowering the rate of interest and prolonging the periods of long-term credits. This bill was passed by the Diet and published on 24 December 1932 in the *Journal of the Laws of the Republic of Poland* (No. 115, section 950). The three decrees of the Minister of Finance published in the *Journal of the Laws* of 10 February 1933 (No. 7, sections 146, 47, 48) complete the law by laying down provisions for carrying it into effect.

In accordance with the terms of these measures, the problem of the reduction of agricultural charges resulting from long-term credit was resolved in the following manner :

(1) The interest on loans in land and other bonds granted by long-term credit institutions are reduced, according to the nature of the credit, to 4 $\frac{1}{2}$, 5 and 5 $\frac{1}{2}$ per cent, and the rate of interest on loans granted by the State Agrarian Bank is reduced to 4 $\frac{1}{2}$ per cent. Loans granted in land bonds at a rate of 5 per cent. or less will not benefit by any reduction, nor will land bonds subscribed by public issue on foreign markets and quoted on foreign stock exchanges.

(2) The amortisation periods of loans have also been prolonged. For loans in land bonds granted by the State Agrarian Bank, as well as for the majority of agricultural loans, the prolongation is to 55 years, including the period of three years during which the debtor only pays interest ; and for loans in improvement bonds the period is prolonged to 36 years, including six years during which only interest is paid.

(3) Simultaneously with the reduction of the rate of interest and the prolongation of the amortisation period, the land and other bonds issued on the basis of the loans are converted into redeemable interest-bearing bonds, in accordance with the principles applied to the rates of interest and amortisation periods of the loans. This provision does not apply to land and other bonds (a) of the State banks ; (b) guaranteed by the treasury ; (c) on which the interest is 5 per cent. or less ; (d) placed on foreign markets by public issue and quoted on foreign stock exchanges.

(4) In regard to the State banks, that is, the State Agrarian Bank and the Bank of National Economy, the question of financing involved in the concessions indicated has been separately resolved by an Order of the Minister of Finance dated 6 February 1933, which contemplates the reduction of the rate of interest and the prolongation of the amortisation period only for land and other bonds held by public institutions, by governmental institutions and by the Treasury. The land and other bonds held by individuals will not be converted, and the difference between the rate of interest and the instalment of amortisation of these securities and the reduced rate of interest and instalment of amortisation of the corresponding loans will be covered by the Treasury.

The development of long-term credit having undergone, as we have seen, an almost complete check, the Bank will devote its attention to short-term and medium-term credit. But in this field also there has been a serious contraction of the business, due both to the want of means and to the necessity of adapting them to the new conditions. Medium-term credit was mainly based on State funds. For short-term credit the Bank will secure the indispensable means by obtaining foreign and other credits, and also by taking advantage to a larger extent of the discount of the Bank of Poland. For the purpose of improving the position of agriculture, a new conversion of short-term loans into long-term loans was carried out to an amount exceeding 70 millions. This conversion was based on a more rational distribution of the dates of repayment of the loans and on the postponement of the repayments. It afforded relief to the debtors, but at the same time it made it necessary for the Bank to limit its short-term credit business.

The short-term and medium-term loans together amounted, on 31 December 1932, to 210.5 millions of zlotys as compared with 282.2 millions on 31 December 1930. At the end of 1932. the short-term loans amounted to 87.5 millions of zlotys and the medium-term loans to 123 millions as compared with 206.2 millions and 76 millions at the end of 1930. The total short-term credits, therefore, diminished, in the course of the past two years, by 118.7 millions of zlotys, or 57.6 per cent.; while the total medium-term credits increased, principally on account of the conversion of about 50 millions zlotys, by 61.8 per cent.

It is recognised that the aggravation of the agricultural credit conditions, in addition to the heavy fall in the profit-earning capacity of agriculture and particularly of animal husbandry, has contributed in Poland to render the situation of agriculture still more difficult. Account must be taken of the fact that the crisis came upon agriculture after a comparatively brief period of favourable conditions, during which the farmers only partially succeeded in restoring and completing the working capital and reserves destroyed by the inflation. Owing to the continuance of the crisis and to the fact that they had not sufficient resources at their disposal, the occupiers of agricultural holdings were compelled to have recourse to credit.

On account of the scarcity of funds from which Poland is suffering these loans were contracted by the farmers on very onerous conditions, the rates of interest and dates of repayment not at all corresponding to the conditions of the farming undertakings.

The following statement shows, according to the calculations of the State Agrarian Bank, the indebtedness of the farmers to the credit institutions on 1 October 1931.

Indebtedness in respect of Short-term and Medium-term Loans.

	Zlotys	Zlotys
Co-operative credit societies	221,300,000	
District savings banks	117,800,000	
Communal loan and savings banks	14,700,000	
State Agrarian Bank	258,900,000	
Bank of National Economy	97,000,000	
Joint stock banks	145,300,000	
Bank of Poland	58,600,000	
Total, Short-term and Medium-term Loans		913,600,000

Indebtedness in respect of Long-term Loans.

Loans in Mortgage Bonds and Other Bonds.

	Zlotys	Zl t, s
State Agrarian Bank	339,300,000	
Bank of National Economy	58,200,000	
Land credit societies	464,900,000	
Private mortgage banks	102,700,000	
Institutions of former States to which parts of the territory belonged (in liquidation)	258,900,000	
Total, Loans in Bonds	<hr/>	1,223,900,000

Loans in Cash.

State Agrarian Bank	387,400,000	
Bank of National Economy	69,200,000	
Total, Loans in Cash	<hr/>	456,600,000
Total, Long-term Loans.		1,680,500,000
Total, Short-term and Medium-term Loans		913,600,000
		<hr/>
TOTAL, ALL LOANS		2,594,100,000
		<hr/>

It is difficult to form an idea of the private indebtedness of the farms on account of the absence of statistics on the subject. This indebtedness now represents an important item; it has grown very markedly in recent years on account of the private loans, both in cash and in goods, to which the agricultural undertakings were obliged to have recourse to a considerable extent, especially during the crisis. What renders the general indebtedness very burdensome is not only the reduced profit-earning capacity of the farms, but also the excessive charges and expenses which are laid upon the farmers by reason of the dearness of the credit itself.

The principal cause of the excessive indebtedness is not so much the absolute amount of the debts as the too high rates of interest and the unhealthy form of a great part of them.

The want of capital which was felt in the period immediately following the inflation had compelled the credit institutions who desired to assure to the farmers the necessary working capital and capital for investment to adapt the rate of interest on the loans they granted to the high rate of interest prevailing on the regular market. Thus the majority of the long-term loans granted during this period by the State banks, by the private banks and by the land credit societies were based on the issue of 7 or 8 per cent. land bonds. Taking as basis the highest quotations recognised by the State banks at which the bonds were issued, namely 82.75 and 93, the effective rate of interest on the loans was about 9 per cent. The rate of interest on short-term loans reached an even higher level. Although the rate of interest charged by the central

institutions did not exceed 9 per cent., the cost of the credit was increased by the provision for the local institutions. The rate paid by the farmers on the irregular market was the highest, for it went to between 24 and 36 per cent. and was generally usurious in character. Even during the period when conditions were favourable, the farmers could with difficulty meet these high rates of interest. It is for this reason that the state banks, which realised the excessive cost of the credits granted, endeavoured from the beginning to diminish the charges by the application of bonuses, of specially favourable rates, etc.

In order to protect the farmers from the danger by which they were threatened on the part of their creditors, the Government, desiring to avoid the sale by auction of agricultural holdings and a fall in the price of land, promulgated numerous laws for the purpose of enabling sound agricultural undertakings, which had become temporarily insolvent, to overcome the crisis. Amongst these we may note.

(1) The Law of 12 March 1932, to facilitate the payment of onerous debts burdening farms (1). In order to obtain for the owners of landed property who had difficulty in paying arrears in respect of taxes and of onerous debts, the Law authorises them, whenever the said difficulties can be resolved by the sale of the whole property or of parts of it, to proceed to the division of the property in a manner laid down by the Law itself and on the basis of certificates establishing the necessity and utility of the division proposed. It is noteworthy that this law facilitates, to a large extent, division of properties with a view to liberating them from engagements, by making the provisions of the Law on Agrarian Reform less strict. The financing of this division was entrusted to the State Agrarian Bank, which was authorised to issue, for this purpose, special 4½ per cent. land bonds. These bonds are not in free circulation but are accepted by the Treasury in settlement of arrears of taxes, as well as by State banks in payment of arrears of certain debts.

(2) The Law of 7 March 1932 granting facilities to farmers at times of judicial dstraint (2).

(3) The Order of 23 August 1932 on measures of protection against the consequences resulting from difficulties of payment in agriculture, which introduced for agricultural undertakings an institution of judicial supervision the function of which was to facilitate the farmers in preparing a plan for the settlement of their engagements and to give them the necessary time to put this plan into execution in agreement with their creditors. The postponement of the dates on which payments are due may be granted for twelve months to the farmer who, though in possession of sufficient means, has momentarily ceased to meet his engagements for exceptional reasons beyond his own control and anticipates being obliged to suspend payments in a near future. The postponement of the dates when payments become due is only a preliminary act to give the debtor the possibility of making arrangements with the creditor. The

(1) Textes législatifs, published by the International Institute of Agriculture, 1932 Series, No. 20.

(2) Textes législatifs, published by the International Institute of Agriculture, 1932 Series, No. 29.

arrangement, known as the "preliminary agreement between creditor and debtor," may consist in the postponement of the due dates, in arranging for repayment by instalments, in the reduction of the rate of interest or in the complete or partial cancellation of the interest, or even in the reduction of the amount of the debt.

(4) The Order of 23 August 1932 on the establishment of Arbitration Offices for questions of credit affecting small properties. The postponement of the due dates and the preliminary agreements above referred to are applicable also to small properties, but as the procedure connected with these preliminary agreements is costly for small property and rather lengthy, the Order provides for the establishment of District Arbitration Offices. The purpose of the arbitration offices is to help small landowners to obtain the postponement of the due dates or the possibility of repayment by instalments and to combat usury in the country.

(5) The Order of 23 August 1932 amending the Presidential Decree of 29 June 1924, concerning usurious loans with a view to facilitating the courts in combating usury; the Order provides for a less strict application of the rules of procedure in establishing proof of usury.

(6) The Order of 23 August 1932 on the dividing up of mortgage debts affecting properties subdivided with a view to the repayment of burdensome debts. By regulating the preventive agreements and introducing for certain cases the compulsory dividing up of mortgage debts at the time of the sale of a part of the land, the order renders it easier for the owners to meet their engagements by means of the subdivision of the land.

None of these four Orders contains provisions to be applied generally and automatically. They require that in each particular case the initiative shall be taken by the interested parties and their object is to create favourable conditions for the conclusion of voluntary arrangements between the farmer and his creditors, in order to facilitate the satisfaction of all the creditors, without prejudice to the properties.

RUMANIA

The new requirements arising out of the agrarian reform and the economic crisis have rendered the problem of agricultural credit in Rumania highly complex. In the statement of reasons presented with the Law of 19 July 1931 on the advantages granted to the associations for the improvement of agriculture in Rumania (1), the Minister of Agriculture and Lands thus expresses himself: "Our production per unit of area is too small, the quality and uniformity of the produce leaves much to be desired and the relation between the costs of production and the value of the products obtained is unfavourable, precisely because of the small quantity obtained per hectare and because of the quality, which does not correspond to the requirements of the world market. The cause of this state of affairs, which we find in many parts of the country, lies in the routine methods

(1) *Official Journal of the Kingdom of Rumania*, No. 167. Bucarest, 22 July 1931.

of work followed by the small farmers, in the absence of the vocational training and the moral effort required for the adoption of certain methods of work more adequate for present day requirements. This moral factor rendering Rumanian agriculture backward, has been aggravated by external causes, the world agricultural crisis, the burden of debts, the disproportion between the productivity of agriculture and the fiscal charges, and the terribly excessive subdivision of property. "

Now, according to the opinion of Rumanian experts in credit questions, it is necessary in the first place that the peasant should be able to find financial aid under suitable conditions :

- (1) When his crop is insufficient to enable him to live and maintain his family.
- (2) When, after a bad year, he has no reserve left to buy the grain necessary for sowings.
- (3) When he wishes to replace extensive cultivation by an intensive cultivation capable of giving a net return proportionate to the capital employed.
- (4) When, particularly in view of foreign trade, he deems it necessary to produce articles of superior quality, and this would require good seeds, fertilisers, etc.
- (5) When he wishes to enlarge his holding, the typical holding of 5 hectares being too small to assure the maintenance of a numerous family.

These manifold needs of credit are ordinarily satisfied, as far as their resources will allow, particularly by the co-operative credit societies (popular banks) which numbered 4,733 in 1931 (1). These co-operative societies, as well as others existing in the country, are grouped in Federations and find in the National Office of Rumanian Co-operation their official centre of administrative and technical assistance; in the Central Co-operative Bank their financial centre, and in the Co-operative Central Association for Import and Export an intermediary for the supply of agricultural requisites and for the joint sale of the agricultural products of their members (2).

(1) These banks, which contain 995,462 members, granted loans to their members to the amount of 5,183,263,000 lei in 1931. At the same period they had 2,046,909,000 lei of paid up capital and 1,577,894,000 lei of deposits.

(2) To the Co-operative Central Association for Import and Export were affiliated, on 31 December 1932, 112 co-operative societies, including 17 federations and 37 popular banks. The federations undertake, on behalf of the affiliated societies, the following operations : (1) the purchase of implements and machines, of seeds, of fertilisers, etc. ; (2) the sale on commission of agricultural products ; (3) the organisation of the joint sale of the products of the co-operative societies and of their members ; (4) the making of advances on agricultural products intended for sale, etc. For the development of its foreign business the Central Association has secured the assistance of certain large business houses which represent its interests on the most important markets. During the years 1929 and 1930 the Central Association marketed 74,417 tons of cereals, of which about 61,000 were exported and the remainder sold on the home market. In 1932 the Co-operative Central Association for Import and Export exported 9,591 tons of wheat, 41,398 tons of maize and 14,504 tons of barley. Most of these latter operations were firm purchases and sales : little use was made of the system of selling on credit, but in such cases advances, on which the sellers had to pay interest, were made by the federations. The subscribed capital of the Co-operative Central Association on 31 December 1932 was 8,755,000 lei and the paid up capital 6,015,918 lei.

The Central Co-operative Bank, which was established in April 1929 under the Law of 28 March 1929 on the re-organisation of co-operation, is a commercial company in which the State participates as a shareholder side by side with a large number of co-operative societies of different kinds and of federations. The capital was fixed at 1,000 million lei; half was subscribed by the State; the other half is being subscribed by the affiliated societies (1). From 4 March 1931 it adopted, in favour of the popular banks, of the other co-operative societies and of the federations, a new system of loans, divided, according to their purpose, their amount and the length of the period for repayment, into five classes:

- (1) Maintenance loans;
- (2) Loans for working capital;
- (3) Loans for investment;
- (4) Loans for circulating capital;
- (5) Loans for the repayment of deposits.

The maintenance loans take the form of discounts and are granted for sum ranging from 3,000 to 50,000 lei per person. There are two kinds: (a) loans for agricultural works, for seeds, for repair of implements, etc.; (b) loans for personal needs, the object of which is to provide the means necessary for maintaining the family and for meeting the expenses occasioned by certain occurrences, such as births, illnesses, baptisms, trials, etc.

Maintenance loans may be obtained from the Central Co-operative Bank, by direct discount, by the popular banks of the old Kingdom of Rumania which have at least 500,000 lei of capital and by the popular banks of the new Rumanian provinces (Transylvania, Bessarabia, Bukovina and the Banat) which have at least 300,000 lei of capital and reserves. The popular banks which do not fulfil these conditions must present their bills for discount through the medium of a federation, or through another popular bank that can directly discount bills.

In 1932 the Central Co-operative Bank granted maintenance loans to the amount of 2,981,957 lei. The total amount of the maintenance loans granted by the Bank up to 31 December 1932 was 57,439,767 lei.

To popular banks which charge interest to their borrowers not exceeding 12 per cent., the Central Co-operative Bank charged 7 per cent. interest; to other banks, 9 per cent.

The acceptance of bills for discount is subject, in principle, to the following, amongst other, rules:

(1) The sum advanced to a person must not exceed one third of his productive property, that is property which directly yields income, such as cultivated land, live stock, buildings rented, etc.

(2) The debtor's ability to repay must be strictly ascertained. Repayment must be made, in principle, in six months. In exceptional cases, postponement may be allowed for a further period of three to six months. Loans

(1) On 31 December 1932, the Central Co-operative Bank had as shareholders 2,149 co-operative societies, which had subscribed capital to the amount of 81,950,000 lei, of which 62,674,575 lei were paid up.

for food, seeds, repair of implements, etc., must be repaid in between 9 and 12 months.

Loans for working capital are granted, either to co-operative societies or through co-operative societies to individuals, for the purchase of goods and requisites, machines and implements, the amortisation of which requires more than two years, as well as for the payment of rents and for advances on grain or other stored products, in which case the loans are more quickly repaid. These loans are only granted, in principle, through the medium of the federations, on the security of bills, bearing the corporate signatures with or without the further surety of the Committee of Management, and secured by a pledge agreement. The loan must be repaid at the moment of the sale of the pledge, in the case of implements and cereals; at the expiration of a year's tenancy, in the case of loans for the payment of rent, and in periods specially fixed in other cases.

The loans for working capital granted by the Central Co-operative Bank in 1932 amounted to 15,149,677 lei. Up to 31 December 1932 the Bank had granted loans of this kind to the amount of 30,573,802 lei.

Investment loans, secured by mortgages, are granted:

(1) To associations of peasants for the purchase of lands where they have deposited 50 per cent. of the price with the Central Co-operative Bank;

(2) To co-operative societies which wish to construct buildings and which possess, in addition to their lands, a liquid fund (handed over to the Central Co-operative Bank) amounting to at least one third of the cost of construction.

The interest on such loans is 9 per cent. and the period may vary between 3 and 15 years. The Central Bank had granted, up to 31 December 1932, investment loans to the amount of 436,724,240 lei.

Loans for circulating capital are granted to federations on the security of bills bearing their corporate signature, or of bills issued by the co-operative societies and discounted by the federation. These loans are intended to supply the federations with the means necessary for current business with their affiliated societies. The loans for circulating capital granted up to 31 December 1932 amounted to 951,883,812 lei.

Lastly, a special form of loan is the loan for short periods granted by the Bank to enable co-operative societies to repay deposits entrusted to them. Up to 31 December 1932 these loans amounted to 57,819,205 lei. Their object is to assure the safety and the liquidity of the interest-bearing deposits of the popular banks when there is danger of a run upon them. To restrain the tendency to invest deposits in long-term loans, for longer periods than those within which the deposits can be withdrawn, or in risky investments, the Bank has laid down the following rules for the co-operative societies:

(1) That a certain relation must be fixed between the society's own funds and the total amount of deposits accepted.

(2) That deposits shall be utilised in forms allowing of their rapid realisation.

At the present time it is difficult to insist on the application of rigid rules in regard to loans of any kind. This explains the decrease in all credit operations in 1932.

During the course of its existence (4 April 1929 to 31 December 1932) the Central Co-operative Bank has granted loans to the total amount of 1,734,285,382 lei (1).

In connection with the agricultural crisis, the Bank has for some time past been studying two fundamental problems: the obtaining of better prices for agricultural products through the organisation of joint sales and the lowering of the rate of interest on loans.

In regard to the marketing of agricultural products, the Bank has organised the financing of the grain crops with a view to introducing the system of joint sale, in collaboration with the Co-operative Central Association for Import and Export. Under this system the producers either deposit their grain, directly or through the co-operative societies or federations, in the warehouses of the Central Co-operative Bank, or load it in trucks consigned to its address or to an address indicated by it. For the grain thus deposited or consigned, they receive an advance on the security of an instrument pledging the grain and an order to sell. The order to sell may be either for an immediate sale at the price of the day, or for sale at a minimum price within a period of not less than 30 days, at the choice of the person who deposits or consigns the grain. In the case in which an order to sell at a minimum price is given, if the grain cannot be sold within 30 days at the price fixed, it will be sold at the price of the day within the 15 following days at latest. When an order for immediate sale, at the price of the day, is given, the advance will be 75 per cent. of the price of grain calculated at the Braïla parity; when the order is for sale at a minimum price, fixed by the producer, the advance will be of 50 per cent. of the price of the grain, calculated in the same way.

On these advances the producers pay interest at the rate of 10 per cent. per annum for at least 30 days.

Before being stored or consigned the grain is cleaned, weighed and graded by quality.

The instruments pledging the grain, together with the orders to sell, received by the Bank from co-operative societies or federations are transmitted to the Central Co-operative Association for Import and Export, which, as soon as it is in possession of these documents, proceed to make agreements for the sale of the grain.

The advances are paid over to the producers by the federations, popular banks and co-operative societies, which for this purpose will be supplied with the necessary funds by the Bank.

Immediately after the sale of the grain by the Central Association, the Bank proceeds to the final settlement of the accounts in favour of the producers who have taken part in the operation.

The Bank intends to extend the business combining operations of financing with those of marketing also to other agricultural products, such as eggs, poultry, milk, butter, cheese, fruit, vegetables, etc. But this initiative encounters an

(1) In this total are not included either the operations on commission, nor those relating to the old Central Association of Co-operative Societies.

obstacle in the too individualistic mentality of the peasant, who does not willingly adopt collective methods of economic organisation.

In any case, for carrying out this programme, as well as in general, for the support and development of agriculture, means are required which at present the institutions which do agricultural credit business do not possess; the farmers are consequently obliged to seek on the free market the capital necessary for the cultivation of their land, and obtain it from commercial banks, from private individuals, and from their own suppliers, at exaggerated rates of interest. This is the origin of a law against usury promulgated in April 1931, in accordance with which the rate of interest must not be more than 6 per cent. higher than the official rate of discount, which, at the time the law was passed, was 8 per cent. and at present is 7 per cent.

As to the lowering of the rate of interest it must also be recalled that the Bank, since October 1930, only charges to the affiliated organisations 7 or 9 per cent. so that the individual borrowers generally pay 12 per cent. On the other hand the co-operative societies borrowing from the Bank were relieved by the spreading of the dates of repayment over long periods, having been authorised to pay their debts by annual instalments spread over 10 or 15 years and, generally, in accordance with their capacity to pay and their incomes, reduced as they are by the crisis. The action of the Bank in this field is connected with the action for the relief of agricultural indebtedness undertaken by the Government as a measure rendered imperatively necessary by the condition of agriculture.

The debts, according to official statistics (1), amount to 52,347,593,294 lei, thus distributed:

(1) Debts of owners of agricultural land possessing more than 10 hectares, 14,970,795,594 lei;

(2) Debts of owners of agricultural land possessing less than 10 hectares, 37,376,797,700 lei.

Details of this indebtedness are given in the following tables:

Debts of Owners of Agricultural Land possessing more than 10 hectares who have made Application to Benefit by the Law on the Relief of Agricultural Debts.

CLASSES OF DEBTORS	Number of agricultural debtors	Percentage	Total area of the properties in hectares	Percentage	Amount of the debts in millions of lei	Percentage	Average per hectare
Up to 500,000 lei	12,527	74.66	493,694	55.61	2,536	16.94	5,136
From 500,000 to 1,000,000 lei . .	1,747	10.37	89,479	10.08	1,668	14.14	18,641
From 1,000,000 to 5,000,000 lei . .	1,996	11.85	199,600	22.49	4,692	31.34	23,507
From 5,000,000 to 10,000,000 lei . .	332	1.97	66,400	7.48	2,278	15.22	34,307
Over 10,000,000 lei	192	1.15	38,400	4.33	3,797	25.36	98,880
Total . . .	16,794	100	887,573	100	14,971	100	16,867

(1) "Converssiunea Datoriilor Agricole." Ministry of Justice, Service of Judicial Statistics. Bucharest, 1932.

Debts of Owners of Agricultural Land possessing less than 10 hectares

REGIONS	Number of owners of agricultural land	Per- centage	Total area of the properties in thousands of hectares	Per- centage	Number of agricultural debtors	Per- centage	Total area of the indebted properties in thousands of hectares	Per- centage
Old Kingdom	1,914,279	61.65	4,982	63.97	1,200,182	38.35	2,805	36.05
Bessarabia	608,071	62.83	2,205	62.43	300,071	37.17	1,325	27.50
Transylvania	1,111,754	54.49	2,252	60.93	750,028	40.51	1,413	34.07
Bukovina	108,970	57.20	250	71.88	145,500	42.74	98	25.12
Total . . .	3,863,683	60.80	9,692	63.07	2,444,781	30.14	5,640	31.93

REGIONS	Number of creditors	Debts, in millions of lei, of owners of agricultural land to						Total indebtedness in millions of lei	Percentage
		Popular banks	Percentage	Other credit institutions	Percentage	Private individuals	Percentage		
Old Kingdom	740,349	6,214.7	35.30	7,112.3	40.10	1,234.2	24.13	17,561.2	17.00
Bessarabia	169,041	772.6	28.88	1,521.1	37.50	851.4	33.00	2,530.9	7.0
Transylvania	1,239,094	1,870.6	12.30	7,112.5	52.07	5,411.0	30.61	15,200.0	40.68
Bukovina	170,588	234.4	11.34	580.1	28.05	1,252.4	60.58	2,067.1	5.53
Total	2,319,072	9,061.3	24.24	16,557.9	41.30	11,757.0	31.10	37,376.5	100

As the fall in prices continued, the Government considered it indispensable to proceed to the conversion of the agricultural debts (Laws of 16 April 1932 and 19 October 1932) (1). The new landowners created by the agrarian reform having had need of investment credit and of other forms of credit were able to obtain them only at very high rates of interest. Up to 1927-28 and as long as the prices of agricultural products were well maintained, these rates of interest were bearable, but as soon as prices began to decline, the agreed charges became impossible to bear. The Agricultural Mortgage Credit Company and the Rumanian Bank of Agriculture, both established in 1931, not having sufficient resources to meet all needs, and no other solution having been regarded as possible, the relief of indebtedness became necessary.

The relief of agricultural indebtedness is based on the following principles:

(1) Reduction by between 10 and 50 per cent. of the amount of the debts, according to their nature and the length of time since they were contracted; this reduction was justified by the legislature on the ground of the usurious rates of interest that had been charged to the debtors;

(2) Reduction of the rate of interest to 4 or 5 per cent.;

(3) Repayment of the debts to be spread over a period of 30 years.

(1) Textes législatifs, published by the International Institute of Agriculture, 1932 Series, No. 28

The above-mentioned laws have been amended by the Law of 13 April 1933, establishing a moratorium for five years for agricultural debts. During this period, creditors and debtors will have the possibility of coming to an agreement for the liquidation of past debts in order to permit the resumption of credit operations, which, at present, have almost completely ceased.

To contribute to the work of the relief of agricultural indebtedness, the Central Co-operative Bank lowered the rate of interest on loans already granted to 3 per cent. The loans granted since the promulgation of the laws remain subject to the rate of interest fixed according to the nature of the loan.

From the general situation in Rumania it appears that, on account of the low returns from farms the remuneration of capital invested in agriculture and the repayment of loans cannot at the present time be assured, as they formerly were.

YUGOSLAVIA.

By several stages and after a long work of formation (1), a central institution for carrying on agricultural credit business in all its forms was finally established by the Law of 16 April 1929, No. 30,630. This institution, the Privileged Agricultural Bank, has a share capital of 700 millions of dinars, to which the State contributed by subscribing for shares to the amount of 120 millions of dinars.

Taking account of the situation of agriculture in the country, the Council of Management of the Bank laid down, from the beginning of its working, the fundamental bases of its credit policy. These bases are determined by the following requirements:

(1) To provide above all by the grant of mortgage loans for facilitating the repayment of the debts of the peasant farmers which, up to the time of the promulgation of the law above mentioned, placed them in a very precarious position, on account of the too brief period allowed for repayment and of the very high rate of interest.

In the period following the war, in fact, it was necessary to restore, in certain regions, the properties damaged by the war; in other regions, where the peasants had surplus capital, it was utilised in the purchase of land. But the land was often bought on credit and at prices which did not correspond to the return from it, especially when the prices of agricultural products began to fall. The peasant also incurred debts for the purchase of live stock, machines, implements, and, to a certain extent, for carrying out improvement works. Debts were even contracted as a result of calamities or, in years of bad harvest, to buy food for men and live stock, as well as to maintain in the villages the standard of life which, in periods when circumstances were favourable, was very high. All these debts, in spite of the disadvantageous conditions on which they had been contracted, were borne as long as the products of peasant farms could be marketed. Peasant farms were able even to bear fairly well the period of inflation. As the farms are cultivated mainly by the families themselves, the pressure was supported by

(1) See: The Agricultural Credit Situation in Yugoslavia. *International Review of Agriculture*, September 1928, Rome, International Institute of Agriculture.

the peasants first of all by reducing their standard of life and then by avoiding all investment of capital. But when the world crisis affected also Yugoslavia, the situation of rural property became much more difficult. The impossibility of export made the prices of agricultural products fall considerably and the disproportion between the prices of agricultural and of industrial products became great. The slight development of the towns and of industry, as well as the inadequacy of the means of transport, tended further to aggravate the situation. Agricultural indebtedness, which was estimated at 4,000 millions of dinars towards the end of 1930, has since considerably increased, owing to the aggravation of the economic crisis.

(2) To satisfy the farmers' current needs of credit by means of small loans (personal agricultural credit), within the limits of their real needs and of their solvency.

(3) To help by means of loans any action calculated to increase agricultural production, particularly the work of such organisations as co-operative societies for production and consumption (silkworm-rearers' societies, vine-growers' societies, dairy societies) and organisations for the purchase and settlement of land.

(4) To help, by moral means and by periodical inspections, the better organisation and the development of agricultural co-operative societies.

To carry out its programme the Bank grants principally three kinds of loans, namely:

- (1) Long-term mortgage loans, for periods ranging from 5 to 25 years;
- (2) Medium-term loans, for periods of from 1 to 3 years;
- (3) Short-term loans, for periods of not more than one year.

In the post-war period the importance of long-term credit, already considerable, has further increased, and a great number of applications were made to the Bank for this kind of credit, the need for which, it is thought, will increase in the future, owing to the great necessity of improvements to agricultural properties.

Next in importance comes medium-term credit, which is utilised for the purchase of live stock and of the smaller implements, for the carrying out of small improvement works, etc. This credit, which is granted by the Bank exclusively through the co-operative societies, is not far behind long-term credit in the need which is felt for it, and it shows a tendency to develop very greatly.

Short-term credit, on the other hand, is still comparatively little developed. By its nature, it ought to serve for purposes of agricultural production and trade and for operations lasting for a year at most. In the opinion of the Bank, the more intense development of this form of credit would depend:

- (1) on the reorganisation of the markets for agricultural products;
- (2) on the construction of general warehouses and elevators;
- (3) on the improvement of the means of transport;
- (4) on a clearer understanding of the nature of this form of credit on the part of the persons to benefit by it, who ought to refrain from utilising it for purposes which can only be carried out with the help of long-term or medium-term loans.

The Bank also finances the purchase and subdivision of the lands of the former large landowners, granting to the purchasers, by a rapid procedure, loans for adequate periods.

In consequence of the exhaustion of the Bank's own resources, of the impossibility of obtaining other funds by means of loans, of delays in the payment of the instalments of repayment which became due, the Bank was obliged in August 1931 to limit its operations to the loans authorised. It was decided not to receive any new applications for mortgage loans, but to receive and to consider only applications coming from co-operative societies.

During 1930 and 1931, the following mortgage loans were authorised and paid for the purposes of purchase of land, conversion of debts, construction of rural buildings and carrying out of improvement works:

YEAR	Loans authorised		Loans paid		Average amount of loans paid, in dinars
	Number	Amount in dinars	Number	Amount in dinars	
1930	11,506	149,713,300	10,160	32,7915,500	32,186
1931	8,553	181,021,250	6,511	181,770,050	21,705
Total . . .	22,059	330,734,550	16,671	509,565,550	27,997

The security accepted for these loans was cultivable lands and lands with rural buildings. According to its regulations, the Bank can grant, in the case of lands mortgaged, up to 50 per cent. of their value, and in the case of rural buildings mortgaged, up to 30 per cent. But these percentages, as a measure of prudence, especially in the present situation, have never been reached.

Transactions with the co-operative societies occupy a very important place in the business of the Bank, which sees in these organisations the basis for the "soundest and most useful" agricultural credit business. Medium-term credit, as we have seen, is in fact supplied exclusively through such societies. It is granted against individual agreements of members of the co-operative societies bearing the signatures of the principal debtor and of two sureties, as well as the endorsement of the local and central co-operative organisations.

In 1930 and 1931, 105,189 loans amounting to 323,272,003 dinars were authorised, and 89,621 loans amounting to 285,151,195 dinars were paid (1). Out of a total of 4,500 co-operative credit societies existing in the country, 2,400 were in a position to take advantage of the services of the Bank; of this number, up to the end of 1931, 1,613 had received loans.

In 1931, interest at 10 per cent. was charged on loans guaranteed by bills; 9 per cent. on mortgage loans up to 300,000 dinars in amount and 10 per cent.

(1) The difference between the loans authorised and the loans paid results from the fact that members of co-operative societies often ask for sums to meet all contingencies, but do not always utilise them in full.

above this amount; 7 per cent., since 1 April 1931, on loans to co-operative societies and 9 per cent., since 26 September of the same year, on loans guaranteed by the deposit of securities.

The general fall in prices, which particularly affected live stock and made the sale of wine impossible, the difficulty in recovering the proceeds of the sale of wheat, various calamities due to the weather, floods and untimely rains in certain regions, and epidemics among the live stock, have compelled the Bank to modify, as the crisis developed, the principles on which the payment of the annuity charges and of sums falling due was regulated, each case being specially considered and a complete or partial postponement of the payments being authorised. Postponements have been granted principally for the following reasons:

- (1) calamities which have destroyed more than 50 per cent. of the agricultural production, such as drought, hail, floods, fires and earthquakes;
- (2) illness and death in the borrower's family, particularly of the head of the family;
- (3) epidemic diseases of live stock and closing of the live stock markets;
- (4) parasites of plum trees and other diseases of fruit trees in the regions where there are many orchards;
- (5) want of access to roads and impossibility of transport;
- (6) impossibility of collecting the proceeds of sales of produce sold on deferred payment;
- (7) impossibility of marketing agricultural products, disproportionate fall in price, especially in the case of holdings which have a special or restricted production;
- (8) cases in which it is necessary to prevent sale at very low prices, particularly of cattle and store pigs;
- (9) cases in which it is necessary to prevent the sale of draught animals, especially those of small landholders;
- (10) to prevent the forced sale of wine at an unfavourable period in the regions where vine-growing is the principal agricultural production.

From this enumeration it is clear that the Bank is particularly anxious to avoid the consequences of the sale of produce on unfavourable conditions and, generally, the impoverishment of the farmers.

In all justified cases, the Bank also authorises the prolongation of the period within which a long-term loan must be repaid when the period of the loan, at the request of the debtor, had been made shorter than that contemplated by the regulations; this is done with a view to diminishing the amount of the annuity charges and facilitating their payment.

By the Law of 19 April 1932 (1) and by other measures, provision has been made also in Yugoslavia for the protection of the farmers and for the conversion of debts.

G. COSTANZO.

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MONTHLY BULLETIN

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AGRICULTURAL ECONOMICS AND SOCIOLOGY

1933

No. 7

MARKETING OF AGRICULTURAL PRODUCTS

Development in Europe of Tariffs and Restrictions on International Trade in cereals.

The present article, which will be continued in the August Bulletin, has been prepared in collaboration between the Bureau of General Statistics and the Bureau of Agricultural Economics and Sociology (1).

FOREWORD.

Even before the present depression set in, the International Economic Conference of 1927 insisted upon the necessity of a reduction in the barriers which impeded international trade and adversely affected world economic activities. The economic depression which began in 1929 brought about a further increase in these impediments by which all countries sought to protect their domestic production against the rapid spread of the disorganisation due to the headlong fall in commodity prices. The outbreak of the financial crisis in 1931, followed by the abandonment of the gold standard in a number of countries, by far reaching dislocations in world economy and by the conversion of Great Britain to protection marked the beginning of a new era in the evolution of international trade. By a continuous succession of tariff increases, of quantitative restrictions of imports and of regulations for the control of dealings in foreign exchange, international trade was impeded to such an extent that of the former unity of the

(1) Mr. J. P. van Aartsen, Redactor in the Bureau of General Statistics, has undertaken the work of co-ordinating the whole of the detailed information and has prepared all the particulars relating to the period previous to 1931, as well as those of customs duties, quotas, and certain other measures of secondary importance. Mr. F. Arcoleo, Principal Redactor in the Bureau of Agricultural Economics and Sociology, is responsible for the enquiries made and for drafting the greater part of the information relating to taxes and duties, export and import licenses, export premiums, monopolies, milling and extraction rates, etc., so far as these fall into the period after the close of 1930. Mr. C. Arrigo has assisted in collecting the provisions relating to customs duties and quotas.

Information on customs duties, supplementary taxes and on quotas are published and appear regularly and monthly in the Monthly Crop Report and Agricultural Statistics.

world market there was left little more than a memory and world economy was broken up into an aggregate of more or less effectively closed national economic systems.

This development had the effect of greatly reducing the turnover of international trade, with disastrous effects upon all the branches of production largely dependent on export. These industries were severely affected, on the one hand, by excessive import duties, by quotas and other measures involving quantitative restrictions of imports, which came greatly to the fore during this period, and, on the other hand, by the degree of uncertainty with which producers had to reckon owing to the exceedingly rapid succession of the fresh measures of restriction.

While agriculture, as well as all other branches of production is very severely affected by the barriers set up to the trade in its products generally, it is particularly sensitive to the frequent changes in the regulations governing international commerce, since its power of adaptation to changing conditions of marketing is admittedly defective.

In the following pages it is the intention to give an account of the recent development of restrictions on international trade in cereals in Europe, as the largest market for imported agricultural products. For each country is given an outline of its policy up to the beginning of 1931 with regard to trade in cereals, followed by a detailed account of the measures taken during the succeeding period as far as possible up to the end of June 1933.

The restrictions imposed on dealings in foreign exchange are not included, because, though they exercise a very strong influence upon international trade in cereals and other agricultural products, they have a general application, while there are here dealt with only those restrictions which specifically apply to agricultural produce.

Though every care has been taken to make the account of the measures dealt with as complete and as accurate as possible, considering the extreme complexity of the subject, this document is in no way intended to show the exact position at any given moment with regard to the importation of any particular cereal. The purpose in view in preparing this material has been simply to bring out quite clearly the drastic character of the restrictions with which international trade in cereals has to contend, as well as the degree of uncertainty and disorganisation to which the world market is subject, from the fact of the rapid succession of fresh regulations.

Limitations of space and of time prevent an extension of the survey to other agricultural products besides cereals. It is proposed later to supplement this study by similar studies relating to certain other products.

GENERAL NOTE.

For the countries in which a considerable number of changes in regulations have been made since 1 January 1931 it has been considered useful to give detailed accounts of such measures, classified by character and by date

of entry into force. For this purpose the measures have been grouped and distinguished by index letters followed by numbers as follows:—

- A = Import duties.
- B = Import taxes, turnover taxes levied on imports, transfer taxes, surtaxes to compensate for exchange variations, etc.
- C = Quota allocations and prohibition of imports.
- D = Import permits.
- E = Measures relating to home trade (milling percentages, bolting percentages, etc.).
- F = Measures to encourage exports.
- G = Measures to regulate or restrict exports.

For the most important measures the date of promulgation has been given in brackets following the text and preceded by the abbreviation "reg". (regulation).

N. B. The section relating to the different countries are arranged in the French alphabetical order.

I. — ALBANIA.

The import trade in cereals and their flours is of very small importance to Albania. The duties are fixed in the customs tariff of 1926. Besides the customs duties, a supplementary tax is also levied, amounting to 13 % of the original duties. Since 1926 only the duty on maize has been modified, having been reduced from 20.00 to 3.00 gold francs, no supplementary tax being levied. The present duties, in so far as they are known to the Institute, are as follows (in gold francs per quintal) :

	Duty	Supplement
Wheat	25.00	3.25
Rye and barley	15.00	1.95
Oats	8.00	1.04
Maize	3.00	—
Wheat flour	37.50	4.87
Rye flour	12.00	1.56

2. — GERMANY.

Introduction. — Owing to the war and the stipulations of the Treaty of Versailles, which obliged Germany in each year to pay enormous sums on account of reparations, the burdens weighing on agriculture have been very heavy. Social legislation also brought considerable obligations. The index-numbers of prices of agricultural products and of farm expenses made for the purpose, show that social burdens in 1927-28 and 1928-29 were 3.9 times and later even 4 times as high as before the war, while taxes during the period 1927-28 to 1931-32 were in Eastern Germany 3.4 times and in Central Germany 4 times the prewar

total. In addition inflation had the effect that the agriculturists lost their circulating capital so that they had to borrow at very high rates of interest. As the natural result of these conditions agricultural production became much more costly.

In the total agricultural production cereals occupy an absolutely preponderant place. During the quinquennial period 1923-27 the average areas of the principal crops harvested were as follows:—

Wheat	1,569,000 ha.
Rye	4,553,000 "
Barley	1,429,000 "
Oats	3,455,000 "

The Versailles Treaty had obliged Germany not to establish customs duties or any other obstacles to imports so that, in view of the fact that costs of production were high, cereal cultivation was profitable only under naturally favourable conditions. When, in August 1925, the period of this prohibition came to an end, the prewar duties were again put into force, but with a considerable reduction for the first year and with less reduction (except for barley) for the year beginning 1 August 1926.

In the law concerned therewith it was laid down that the prewar general duties would enter into force on 1 August 1927 but the enforcement of this regulation was in fact postponed to a later date. In the brief summary following, the general duties at different periods (in each case in Reichsmarks per quintal) are indicated.

	Prewar general duty	Duty from August 1925	Duty from August 1926	Date of entry into force of the prewar duty
Wheat	7.50	3.50	5.00	10-7-29
Rye	7.00	3.00	5.00	10-7-29
Barley	7.00	3.00	7.00	1-8-26
Fodder barley under cus- toms control	n. s. i.	1.00	2.00	—
Oats	7.00	3.00	5.00	10-7-29
Maize	5.00	2.20	3.20	1-3-28
Wheat flour, rye flour and maize meal	18.75	8.00	10.00	30-12-29
Barley meal	18.75	8.00	14.00	1-8-27
Oat meal	18.75	10.00	14.00	1-8-27

It should also be noted that during the period from 1 April 1927 to 10 July 1929 the general duty on flour of wheat, rye and maize was Rm. 12.50 and later, until 30 December 1929, Rm. 14.50.

During this period, however, the duties to be levied on cereals and flours, originating in and consigned from countries with which Germany had a commercial treaty on the basis of the most-favoured-nation clause, were already fixed at a maximum as regards whole cereals other than maize in the commercial treaty with Sweden, which entered into force on 17 July 1926, as follows: wheat Rm. 6.50; rye and oats Rm. 6.00 — so that for these three cereals the conventional duties were up to 10 July 1929 higher than those actually levied — barley Rm. 5.00; while in a treaty with France (coming into force on 2 September 1927) the duty on flour of wheat, rye or maize was reduced to Rm. 11.50. In addition, from 20 September 1927, the duty on maize for stockfeeding imported under customs control was fixed at Rm. 2.50 in the treaty with Yugoslavia.

General duties on barley, fodder maize and flour of wheat, rye and maize, as well as from 10 July 1929 on wheat and rye, had, however, an influence on trade, since there were for a long period no treaties with Canada and Australia (to mention only two important cereal-exporting countries). With Poland relations were even such, that in 1927 special duties of Rm. 10.00 for shipments of wheat, rye and barley and of Rm. 25.00 for those of cereal flours were levied.

The conventional duties remained in force, as regards Sweden, up to 11 February 1930 and, as regards France, up to 10 July 1929.

Since the beginning of 1930, when prices began to fall seriously, duties have been several times raised. The first increase for whole cereals took place under the régime of general duties and conventional duties; the following increases, on the contrary, immediately made themselves felt.

While up to 1927 there existed an import surplus for all cereals, the customs duties began at that moment to stimulate home production so that during the following years, especially as regards rye and oats, the situation changed. The import surpluses (+) and the export surpluses (—) are given below for commercial years (August-July), in each case in thousands of quintals.

	1927/28	1928/29	1929/30	1930/31
Wheat and wheat flour	+ 24,099	+ 21,166	+ 13,039	+ 8,475
Rye and rye flour . .	+ 3,224	— 4,030	— 4,323	— 515
Barley	+ 18,959	+ 16,148	+ 22,087	+ 8,335
Oats	— 4	— 2,307	— 6,634	+ 356

The very heavy imports of 1927-28 were in great part the result of the poor harvest of 1927 but during the following years the overproduction of rye and oats prevented the maintenance of prices at a remunerative level. Numerous measures such as the increase of customs duties, import licences, fixing of a maximum extraction percentage for flour, fixing of a minimum percentage of home grown cereals in flour for bread making, export licences, etc. were, however, taken to bring about a more favourable position. These measures will be considered separately.

As regards import duties it seems useful, in view of the numerous modifications, to summarise the autonomous duties in the table following (in every case in Rm. per quintal):—

Date of increase	Wheat	Rye	Barley other than for fodder	Fodder barley	Oats	Cereal flour
31-12-29 .	—	—	9.00	5.00	8.00	—
20- 1-30 .	9.50	9.00	—	—	—	—
27- 3-30 .	12.00	—	10.00	10.00	12.00	22.25
18- 4-30 .	15.00	—	15.00	—	—	26.75
25- 4-30 .	—	—	—	—	—	31.50
26- 5-30 .	—	15.00	—	12.00	—	—
28- 9-30 .	18.50	—	—	—	—	38.50
26-10-30 .	25.00	—	20.00	—	—	51.50
4-12-30 .	—	—	—	18.00	—	—

It must further be noted that from 11 September 1930 the duty on fodder barley (at first Rm. 12.00, subsequently Rm. 18.00) is reduced to Rm. 6.00 in cases where the importer can prove that he has bought an equivalent quantity of denatured rye or of potato flakes, and that from 5 November 1930 there exists a reduced duty of Rm. 11.25 for hard wheat destined for the manufacture of hard wheat groats and imported under customs control.

These duties were at first fixed in such a way as to make it possible for the Government to alter them, in cases where this should be necessary in view of price changes. The first law, which came into force on 31 December 1929, fixed the duty on wheat at from Rm. 3.50 to Rm. 9.50; the second, in force as from 27 March 1930, at between Rm. 1.50 and Rm. 12.00. The first law took as basis the last quarter of 1929, when the average price of wheat was only Rm. 23.00 but, as it was intended to arrive at the price of Rm. 26.00, the autonomous duty was fixed immediately at its maximum. The third law, in force from 18 April, suppressed the limits between which the duty should be fixed. Analogous regulations were applied to other cereals.

For flour the duties were fixed in accordance with the duty on wheat so that they amounted at first to Rm. 4.25 per quintal above the duty on 150 kg. of wheat, from 28 March 1930, to Rm. 5.25 above the duty on 150 kg. of wheat and finally, from 28 September, to Rm. 1.50 above the duty on 200 kg. of wheat.

The duty on maize was still fixed in the treaty with Yugoslavia. This obstacle was removed by creating under the maize law, which came into force on 1 April 1930, a Monopoly (« Reichsmaisstelle ») on this cereal for the duration of two years but afterwards extended. It should be noted that private trade is still responsible for the purchase of the imported product but that such product can only be imported after being bought from the trader by the Monopoly. The general duty on maize was at the same time lowered to Rm. 2.50. The Monopoly was to fix from time to time the additional rate to be paid above the import price. There is here a double advantage : on the one hand a too acute competition between maize and other cereals can be avoided, on the other the fixed prices allow a good profit, which is employed to assist agriculture.

The export of cereals was necessary from time to time throughout the period considered. Especially after a good harvest the demand was not always strong enough in the great consuming regions of the West and the South to allow the agriculture of Eastern Germany to obtain a profit, taking into consideration the fact that transport by rail for long distances is always costly.

It was on account of the difference in the costs of transport by sea and by land that there had already been organised at the end of the last century the so called "Einfuhrscheinsystem", i. e. the system of import certificates, which enable exporters of certain products to import duty free at a later date a definite quantity of certain products up to a value corresponding to that which these exported products would have represented if calculated at such date. In accordance with the coming into force of the import duties in 1925, these import certificates were restored for the harvest of that year as from 1 October. During the period from 1 August 1926 to 10 October of the same year they had only a value corresponding to the duty as before 1 August 1926. During the period from 18 May to 31 July 1927, when the German price of rye was very high in comparison with that on the free markets, certificates were not delivered. From the time when the duties on cereals began to be increased by successive steps (31 December 1929), there was a further change in the system so that the value of the "Einfuhrscheine" did not correspond any longer with the duties on cereals. Their maximum value was then fixed as Rm. 6.50 for wheat and barley and Rm. 6.00 for rye. This was necessary because, by the spring of 1930, the duties had risen higher than the difference between the prices in Germany and those on non-protected markets. Later on they even began to rise above the prices in Germany.

At this time Germany and Poland were the two principal rye-exporters in the world. To reduce the supply on the importing markets it was desirable to arrive at an agreement with Poland and this obliged the Government to organise a compulsory syndicate of German rye exporters. This syndicate was formed at the beginning of 1930, and in connection with it special conditions were established for the delivery of import certificates.

In view of the delicate situation of the public finances the Government felt itself obliged to reduce the distribution of import certificates. At first (20 January 1930) the certificates were limited to the export of 500,000 quintals of barley of specific weight above 67 kg.; afterwards (18 April 1930), for a quota of 700,000 quintals of rye, the value of the certificates was fixed at Rm. 9.00; on the other hand the delivery of these certificates was completely abolished as from 4 June 1930 for oats, as from 5 June for wheat flour, as from 5 July for rye, as from 3 October for wheat, barley, flour and other products of rye milling and as from 5 November for other flours and milling products.

As has already been said, from 1927 the rye and oat crops developed to such an extent that overproduction may be said to have occurred, while considerable quantities of wheat and barley had to be imported during the same period. The Government attempted, and with partial success, to bring about an increase in the use of rye for breadmaking, at first by very active propaganda for the consumption of rye bread, afterwards by fixing a maximum extraction percentage and a

minimum percentage of homegrown rye in flour. The law of 17 July 1930 laid it down that, for the period 15 August 1930 to 30 September 1932, three qualities of rye bread might be made. The extraction percentage had to be either 100 % (whole bread, "Vollbrot") or 60 %, at the maximum. Whole bread as well as other rye bread had to consist up to 97 % of rye flour, while mixed bread had to consist up to at least 60 % of rye flour with an extraction percentage not above 60. A presidential decree of 2 December 1930 changed some of these regulations and the more recent legislation gives much more liberty.

At the same time an attempt was made to find other markets for rye by increasing the price of maize (monopoly) and that of barley (customs duty) and it was found possible in practice to avoid the purchase of imported fodder barley except together with denatured rye (Eosinroggen).

Special organisations had previously on several occasions purchased large quantities of rye, which were put on the market immediately after the harvest.

All these measures together, however, failed to prevent a reduction in rye prices, especially in relation to those of wheat. In the following summary are given the average prices of the two cereals at Berlin in Rm. per quintal for the more recent agricultural seasons :—

	Wheat	Rye
1927-28	25.03	25.00
1928-29	21.83	20.47
1929-30	25.33	17.04
1930-31	26.00	17.18
1931-32	23.63	19.00
1932-33 (10 months)	19.74	15.59

This difference, accentuated specially during these last few years, was due also to the fact that wheat, as a cereal used in breadmaking, could be completely absorbed for that purpose. For wheat the law of 4 July 1929 already established that in the commercial season 1929-30 the mills would be obliged to employ at least 30 % of home-grown wheat and in the first four months not less than 40 %. For more recent data see below.

This difference in sensitiveness had the effect of increasing the cultivation of wheat and restricting that of rye, and this was also the object of the legislation.

Average	Area in thousand ha.	
	Wheat	Rye
1923-27	1,569	4,553
1928.	1,728	4,634
1929.	1,600	4,727
1930.	1,781	4,711
1931.	2,167	4,366
1932.	2,280	4,450
1933.	2,318	4,513

For the purpose of increasing the cultivation of barley and of decreasing that of oats other measures of analogous character were taken.

The result of all this legislation was that, already at the beginning of 1931, the German market was practically independent of the situation outside the country.

In the following summary the more important measures taken after 1 January 1931 are indicated, in so far as they are known to the Institute.

Wheat and its derivatives.

- A. 1 (15-1-31) Wheat imported under customs control for the manufacture of wheat starch, duty reduced: Rm. 11.25.
 - E. 1 (1-2-31) Minimum percentage of home-grown wheat for milling 75 %.
 - E. 2 (1-4-31) Minimum percentage of home-grown wheat for milling 50 %.
 - A. 2 (15-5-31) Wheat imported under customs control and by mills, which in the second quarter of 1930 employed foreign wheat or spelt for the manufacture of flour and groats, for a quota of 20 % of these quantities destined for the manufacture of flour or groats, duty reduced: Rm. 20.00 (duty valid until 15-6-31; later prolonged until 15-7-31).
 - E. 3 (7-6-31) An addition of 10 % of potato flour is permitted in products of wheat milling for bread making.
 - A. 3 (10-6-31) Duty on cereal flours reduced to Rm. 1.50 above the duty on $1\frac{2}{3}$ quintals of whole wheat: Rm. 43.16.
 - A. 4 (16-7-31) Wheat, regulations as in A. 2 but quota reduced to 5 %; duty valid until 31-7-31.
 - E. 4 (1-8-31) Minimum percentage of home-grown wheat for milling 60 %.
 - E. 5 (16-8-31) Minimum percentage of home-grown wheat for milling 97 %. At the same time it will be possible to replace 27 % of the total wheat milled by wheat imported in compensation for wheat exported previously with export certificate (Austauschweizen).
 - F. 1 (20-8-31) The regulations in force concerning import certificates (Einfuhrscheine) distributed on the export of wheat and rye are modified. Thenceforward export certificates (Ausfuhrscheine) may be issued, giving the right of free import or of import at reduced duties of the same *quantities* of goods as are exported, and not, as previously, giving the right to a quantity equivalent to the *value* shewn in the import certificate.
- As the difference between the price on the non-protected market and the price in Germany for the same product is not fixed the value of the export certificate also changes.
- A. 5 (24-8-31) Wheat, on production of an export certificate proving export during the period ending 31-12-31; Rm. 2.00 (duty valid until 31-7-32).
 - E. 6 (16-10-31) Mixing percentage of potato flour in products of the milling of wheat for breadmaking fixed at 4 %. The utilisation of these products is obligatory for concerns using wheat flour for the manufacture of bread or pastry (Regulation valid until 15-4-32).

- A. 6 (16-11-31) Hard wheat imported under customs control by mills which manufactured hard wheat groats in 1931 before 1 October for the manufacture of these groats: Rm. 11.25 (duty valid until 31-7-32).
- B. 1 (1-1-32) The percentage tax on turnover, which, so far as it concerns imported merchandise, is called a compensation tax (Ausgleichssteuer) is 2 %. For whole cereals, the residues of the manipulation of these cereals (including cereal bran) is at a reduced rate of 0.85 %. Reexported products are exempt from this tax.
- F. 2 (31-3-32) The regulation of import certificates (Einfuhrscheinordnung) is abrogated and replaced by a regulation of export certificates (Ausfuhrscheinordnung), relating to all kinds of cereals (and legumes) as well as to their milling products, while the regulation of home-grown products under F. 1 referred only to wheat and rye. The export certificate to be delivered on the exports of milling products must correspond to the quantities of the whole products employed in their manufacture (Reg. of 19-3-32).
- A. 7 (1-4-32) Supertariff for shipments of certain products originating in or consigned from Poland or Canada:—
for Poland:—
- | | |
|---|-----------|
| wheat, general duty | Rm. 30.00 |
| wheat imported under customs control for the manufacture of wheat starch. | » 14.00 |
| hard wheat imported under customs control for the manufacture of hard wheat groats (see A. 6) . . . | » 14.00 |
- for Canada:—
- | | |
|--|---------|
| cereal flours Rm. 15.00 above the duty on $1\frac{2}{3}$ quintals of wheat | » 56.66 |
|--|---------|
- A. 8 (18-4-32) Wheat imported under customs control for poultry-feeding (Hühnerweizen) in quantities determined by and on production of a special licence from the Ministry of Finance: exempt (exemption valid until 30-6-32, later prolonged until 10-7-32).
- A. 9 (1-5-32) Wheat imported under customs control for the manufacture of flour and groats, to be imported by the mills, which between April and June 1930 employed foreign wheat or spelt for the manufacture of flour and groats. Import limited to the months of May and June 1932 and to 15 % of the quantities of home-grown or imported wheat and rye, employed for the same purpose in similar establishments during the second quarter of 1930: Rm. 18.00.
- A. 10 (1-7-32) Supertariff for shipments originating in or consigned from Canada: abrogated.
- E. 7 (1-8-32) Minimum percentage of home-grown wheat for milling 97 %.

- A. 11 (1-8-32) Hard wheat imported under customs control for the manufacture of hard wheat groats, to be imported by the mills up to a quota of 45% of the quantity of foreign hard wheat utilised in 1931 for the same purpose : Rm. 16.00 (duty valid until 31-7-33 ; the duty for shipments originating in or consigned from Poland amounts to Rm. 20.00).
- A. 12 (1-8-32) Wheat on delivery of an export certificate proving export during the period :—
 1-8-32 to 31-10-32 : exempt ;
 1-11-32 to 31-1-33 : Rm. 0.75 ;
 (duty valid until 31-7-33).
- E. 8 (16-8-32) Minimum percentage of home-grown wheat for milling 97 % (percentage to remain in force until 15-8-33).
- E. 9 (14-10-32) The mixing percentage of potato flour in products of wheat milling for breadmaking is fixed until 15-10-33 at 2.50 %.
- A. 13 (1-2-33) Wheat on delivery of a certificate proving export of the same quantity of seed wheat during the period 1-2-33 to 31-5-33 : exempt (exemption valid until 31-7-33).
- A. 14 (6-3-33) Wheat to be imported by mills belonging to a special organisation on production of an export certificate showing the export of a corresponding quantity of products of wheat milling : Rm. 0.75 (duty valid until 31-7-33).

Rye and its derivatives.

- A. 1 (5-3-31) Rye, general duty increased in view of the risk of imports of Russian rye purchased with this object in Rotterdam, to Rm. 20.00.
- E. 1 (9-4-31) The minimum extraction percentage for flour from home-grown rye is changed from 60 % to 70 % in conformity with the bread law.
- F. 1 (20-8-31) See F. 1 wheat.
- A. 2 (24-8-31) Rye on delivery of an export certificate proving export during the period ending 31-12-31, Rm. 1.00 (duty valid until 31-7-32).
- B. 1 (1-1-32) See B. 1 wheat.
- F. 2 (31-3-32) See F. 2 wheat.
- A. 3 (1-4-32) Supertariff for shipments of certain products originating in or consigned from Poland or Canada :—
 for Poland : rye Rm. 30.00
 for Canada : cereal flour » 56.66
- A. 4 (1-7-32) See A. 10 wheat.
- E. 2 (31-7-32) Minimum extraction percentage abrogated.

- A. 5 (1-8-32) Rye, on delivery of an export certificate proving export during the period :
 1-8-32 to 31-10-32 : exempt :
 1-11-32 to 31-1-33 : Rm. 0.50 ,
 (duty valid until 31-7-33).
- A. 6 (1-2-33) Rye, on production of a certificate proving the export of the same quantity of seed rye during the period 1-2-33 to 31-5-33: exempt (exemption valid until 31-7-33).
- A. 7 (6-3-33) Rye, to be imported by mills belonging to a special organization on production of an export certificate showing the export of a corresponding quantity of products of rye milling : Rm. 0.50 (duty valid until 31-7-33).

Barley and its derivatives.

- A. 1 (26-6-31) Barley for stockfeeding imported under customs control, on controlled purchase of a certain quantity of denatured rye, potato flakes or maize from the monopoly, in quantities to be fixed separately: Rm. 5.00.
- F. 1 (25-11-31) Re-introduction of import certificates, exempting exporters of barley and oat products from payment of import duties on similar products imported, suspended on 5-11-30.
 Value shown on the certificates for barley products :
 Malt Rm. 10.00.
 Pearl barley, groats, semolina and barley flakes and meal resulting from the manufacture of these products: Rm. 8.00 (reg. of 17-11-31).
- A. 2 (1-12-31) Barley for stockfeeding imported under customs control on controlled purchase of $\frac{1}{3}$ quintal of potato flakes : Rm. 4.00.
- E. 1 (18-12-31) Barley for stockfeeding imported under customs control; duty unmodified but the controlled purchase of a certain quantity of home grown barley, potato flakes and other products of home agriculture or their derivatives in a quantity to be fixed separately, now obligatory.
- B. 1 (1-1-32) See B. 1 wheat.
- F. 2 (16-1-32) The issue of import certificates in connection with the export of barley malt revoked (reg. of 8-1-32).
- F. 3 (31-3-32) See F. 2 wheat. The regulations of F. 1 and of F. 2 remain in force.
- A. 4 (1-4-32) Supertariff on shipments of certain products originating in or consigned from Canada:—
 barley, general duty Rm. 25.00
 barley for stockfeeding, under customs control. » 20.00
- A. 5 (1-7-32) See A. 10 wheat.

- E. 2 (9-9-32) Barley for stockfeeding, imported under customs control: duty unmodified but the purchase of a quintal of denatured rye or of a quintal of home-grown barley now obligatory.
- F. 4 (18-9-32) Regulations of F. 1 and F. 2 revoked. Issue of import certificates abrogated (reg. of 6-9-32).
- A. 6 (26-10-32) Barley for stockfeeding, import under customs control, up to a quota of 20 % of the quantity of barley exported in the form of malt by the malteries having the right to receive an export certificate; on production of a permit, stating that such quantity of barley in the form of malt has been exported: exempt (exemption valid until 31-7-33).
- A. 7 (26-10-32) Barley other than for stockfeeding, on production of an export certificate, stating that a corresponding quantity in the form of pearled grain, semolina, groats and flakes, as well as meal resulting from the manufacture of these products, has been exported: exempt (exemption valid until 31-7-33).
- A. 8 (1-2-33) Barley on production of a certificate proving the export of the same quantity of seed barley during the period 1-2-33 to 31-5-33: exempt (exemption valid until 31-7-33).
- C. 1 (10-2-33) Barley for stock feeding, import prohibited up to end of current agricultural season, except with export certificate.

Oats and oat derivatives.

- A. 1 (3-5-31) Oats, general duty: Rm. 16.00.
- F. 1 (25-11-31) The concession of import certificates reintroduced (see F. 1 barley). Value shown on the certificates for oats milling products, excluding oats merely broken or rolled: Rm. 8.00. (reg. of 17-11-31).
- B. 1 (1-1-32) See B. 1 wheat.
- F. 2 (16-1-32) The issue of import certificates in connection with the export of bruised or coarsely pulverized oats revoked (reg. of 8-1-32).
- F. 3 (31-3-32) See F. 2 wheat. The regulations of F. 1 and of F. 2 remain in force.
- F. 4 (18-9-32) Regulations of F. 1 and of F. 2 revoked. Issue of import certificates abrogated (reg. of 6-9-32).
- A. 2 (26-10-32) Oats, on production of an export certificate stating that a corresponding quantity of oats in the form of milling products (excepting rough oats coarsely broken, rolled, bruised or otherwise reduced) has been exported: exempt (exemption valid until 31-7-33).
- A. 3 (1-2-33) Oats, on production of a certificate proving the export of the same quantity of seed oats during the period 1-2-33 to 31-5-33: exempt (exemption valid until 31-7-33).

- A. 4 (11-3-33) Oats, on production of an export certificate proving the export of the same quantity of oats: Rm. 8.00.
(duty valid until 31-7-33).
- A. 5 (11-3-33) Oats, on production of an export certificate stating that a corresponding quantity in the form of milling products (excepting rough oats coarsely broken, rolled, bruised or otherwise reduced) has been exported: Rm. 8.00 (in case of authorized export before 11-3-33: exempt; see A. 2) (reduced duty valid until 31-7-33).

Maize and derivatives.

- E. 1 (1-4-32) State monopoly prolonged for 2 years until 31-3-34.
- A. 1 (10-1-33) Supertariff is applied to shipments of maize originating in or consigned from Argentina: duty Rm. 25.00.
- A. 2 (13-2-33) Supertariff for Argentine maize abrogated (see A. 1).
- E. 2 (2-6-33). The measure limiting the action of the monopoly to 31-3-34 (E. 1) abrogated. At the same time the monopoly is reorganised.

General note with reference to maize. — Apart from the measures referred to above, others adopted in recent years call for mention. As already stated in the introduction to this section the maize monopoly has had the result of regulating to a certain extent the consumption of other feed grains. By raising or lowering the additional rate as may be advantageous to the monopoly it has been possible to limit maize consumption whenever the supply of other feed grains was in excess of demand, and to increase it when a certain shortage of such other grains might involve risk to the financial results of cattle breeding and fattening.

In addition for the encouragement of egg production a cheap maize has been made available for poultry breeders at a low price. This poultrymaize (Hühnermais) has to be supplied through the co-operative egg-marketing societies; hence breeders who desire to benefit must become members of these societies, a fact which has had an important influence on the egg-market. At the same time the wheat and barley market have benefited, as the special maize is sold only in combination with certain quantities of these other products, bought in the ordinary course on the home market.

The monopoly also supplies maize at a cheap rate to manufacturers of maizena while these are compelled to make exclusive use of potato flour in the manufacture of glucose, instead of maize flour as formerly. By this arrangement an increase in the consumption of potato flour, a native product, is secured. These measures however do not suffice to secure a complete control of the home market as a number of other products, used in stock feeding, remain still free. The trade in these products also, as will be seen from the following table, has gradually been absorbed by the "Reichsmaisstelle".

Date of coming under the monopoly	Products
8-7-32	Dari, sorghum, etc.
29-12-32	Cereals other than rye, wheat, barley, oats, buckwheat millet, maize, dari and rice. Unpolished rice. Polished rice. Rice waste products, other than as required for human consumption. Waste products of starch manufacture, other than as required for human consumption.
6-4-33	Oil seeds. Oil-seed cake, etc.

It should be noted that the additional rates levied by the monopoly are relatively high in the case of products required for cattle-feeding but very low where it is guaranteed that the products will be used for human consumption.

General note referring to all products. — In the trade treaties recently concluded with certain European States, which are exporters of cereals, Germany has conceded preferential duties, subject to the condition that the other States with which Germany has trade treaties based on the most favoured nation clause raise no objection. Since on the other hand up to the present this opposition still exists, it has not been found possible to enforce that part of the treaties which refer to these preferences. It may be of interest however to quote the most significant provisions that have been stipulated in this regard.

The new treaty with Bulgaria contains as preferential duties, expressed as percentages of the general duties in force at the time of importation, the following reduced duties:—

Bulgarian wheat	75 %
Bulgarian barley, for cattle feeding, under customs control in the event of a controlled purchase of barley, of potato flakes or of other native agricultural products	50 %
Other Bulgarian barley for cattle feeding under customs control.	50 %
Bulgarian . maize	40 %

The treaty with Hungary contains a similar stipulation for Hungarian wheat. It should be added that Germany at the time of the Stresa Conference (September 1932) reckoned on allowing similar preferences also to Rumania and Yugoslavia. However, in consequence of the termination of the trade treaty with the last named country as from 6 March 1933, Yugoslavia no longer enjoys most favoured nation treatment.

The difficulty of giving effect to treaties of this order is further seen in the action which Germany found itself compelled to take with regard to Argentina. Argentina has for a long time defended the most favoured nation

clause in its integrity. As however regional agreements containing variations in favour of countries in the same region were generally considered as permissible, Argentina had concluded an agreement of this kind with Chile. This agreement was however unfavourable to Germany and it was by way of reprisals for the agreement arranged by Argentina, which did not wish to allow the preferential clause in respect of cereals from South Eastern Europe, that Germany increased the duty on Argentina maize until the time when certain clauses in the agreement between Argentina and Chile were modified.

3. — AUSTRIA.

Introduction. — Austria, within its post-war frontiers, is principally a mountainous country, a fact which encourages specialisation on livestock production. The area of permanent meadows and pastures is considerably larger than that of arable land. On the areas under crop, cereals preponderate, as may be seen from the figures of areas harvested on the average for the five-year period 1923-27, viz :—

Wheat	198,000 ha.
Rye	382,000 »
Barley	142,000 »
Oats	313,000 »
Maize	60,000 »

giving a total of 1,095,000 ha. or nearly 57 % of the total arable land. Even if it is remembered that much rye bread is eaten in Austria, it is evident that a population of 6,700,000 inhabitants (an average figure for recent years), cannot be fed from the produce of the area under bread cereals, especially as yields are rather low in the mountainous regions. The balance of production and import surplus in the period 1923-27 was as follows (in thousands of quintals) :—

	Production	Import Surplus
Wheat	2,692	4,255
Rye	4,700	909
Barley	1,929	705
Oats.	3,938	833
Maize	1,043	1,411

In the former Austro-Hungarian Empire there was already tariff protection for agricultural products, which before the war was quite effective, as the different regions were in a very good position to complement each other, each of them producing the commodities with respect to which it possessed natural advantages. Some encouragement to cereal-growing was thus given to farms situated within the borders of the present Austrian Republic. There was however no great development there, more favourable conditions existing in

a large part of former Hungary. The regions at present forming Austria used to be in fact exporters of industrial products, to which the frontiers of the other new States were, after the war, nearly or completely closed. It was consequently considered necessary, in order to maintain equilibrium in the trade balance, to give more attention to agriculture. This was all the more urgent because of the existence in present-day Austria of the very large capital Vienna, which had formerly been the principal centre of consumption of the Empire. It could, as such, be easily maintained in a country of 52,356,000 inhabitants (1910) of which its 2,031,000 inhabitants represented only 4 %, but only with great difficulty when its 1,825,000 inhabitants represented the high proportion of 27 % in a country having the reduced population of 6,733,000 inhabitants (1931).

In 1924, when the new customs law entered into force, it was nevertheless believed to be possible to restrict protection to very narrow limits: for wheat, rye, barley and oats the same duty was fixed, always in relation to the price of the first-named product on the home market and varying, in gold crowns, from 0.25 to 4.00. After currency stabilisation it was possible to fix the duty more exactly. The duties continued to be established in gold crowns but with the stipulation that payment might be made in schillings of the legal currency on the conversion basis of 1 gold crown = 1.44 schilling. Owing to the necessity of obtaining advantages in customs treaties with the other Succession States, the duties were considerably increased in the autonomous tariff so that they could be lowered again if necessary to obtain concessions from the other party by means of a customs convention.

This system has, since then, always been followed. The first duty fixed in this way was one of 1.50 gold crowns per quintal on barley (treaty of 1924 with Czechoslovakia).

It was followed by a duty on cereal flours. Whereas the customs law fixed this duty at 3.00 gold crowns above the duty on 1 quintal of wheat, which supplement was raised on 10 August 1926 to as much as 5.00 gold crowns above the duty on 1 quintal of the same cereal in the grain, a treaty with Hungary, enforced on 14 August 1926, lowered it (for flour and meal other than maize meal) to only 1.45 gold crowns above the duty on 1 quintal of the same cereal in the grain. The restriction exists, however, that this supplement is calculated on the basis that the duty on the cereal in the grain will not reach 1.50 gold crowns. If, on the contrary, it reaches 1.50 gold crowns or more the supplementary duty is automatically raised to 1.65 gold crowns.

These duties were not, however, sufficient for Austrian agriculture and have since been increased several times. In 1927 and 1928 the duties on wheat, rye and oats were fixed at 2.00 gold crowns per quintal in the new treaties with Yugoslavia and Hungary and that on cereal flours and meals (other than maize meal) was fixed, for the latter country, at 5.00 gold crowns. These conventional duties remained in force until 15 July 1931 but in 1928 the autonomous duty on flours was raised to 8.00 gold crowns above the duty on 1 quintal of the same cereal in the grain and on 27 July 1930 it was further increased to 8.00 gold crowns above that on 2 quintals of the same cereal in the grain. At

the same time, in view of the marked fall in prices, it was laid down that the Government could levy a supplementary duty on wheat, rye, barley and oats in the event of a fall in prices, other than one of a temporary nature, which might become a danger to cereal production.

During this period of fixing duties, recourse was had to another means of aiding cereal producers. The law of 27 September 1929 regulated exports of cereals in the grain (and also of cattle) by means of import certificates (Einfuhrscheine), to be issued against exports of wheat, rye, barley and oats of good quality and valid, within the nine months after export of such products, for the payment of import duties on any product imported up to an amount equal to the sum which would have had to be paid for import of the same quantity of the same cereal at the date of export. For cereals this certificate could be used either by the exporter himself or by a member of cooperative organisations. A new law of 29 January 1930 limited the use of certificates by the exporter to the payment on imports of wheat, rye, barley and oats.

The law of 16 July 1930 having reference to the special measures to be adopted for remedying the agricultural crisis has given the possibility of utilising for the purpose a special fund of 96 million schillings for providing crop premiums and subsidising the handling of cereals used in breadmaking, as also for giving special assistance to the peasants in the mountain districts.

A fiscal measure, which entered into force on 1 January 1930 and has some bearing on the formation of prices, is the turnover tax levied on imports and amounting to 2 % *ad valorem* for cereals in the grain, 7 % for wheat and maize groats and for flour and 5 % for other milling products. The value includes the import duty.

The conventional duties on 1 January 1931, fixed in 1927 and 1928, were as follows (per quintal):—

Wheat, rye, oats (Hungary)	2.00 gold crowns
Barley (Czechoslovakia)	2.00 " "
Barley for fodder, recognised as such (autonomous) .	exempt.
Maize (autonomous)	exempt.
Wheat flour, rye flour, barley meal and oatmeal (Hungary)	5.00 gold crowns
Maize-meal (autonomous)	8.00 " "

These conventional duties are imposed on commodities originating in and consigned from neighbouring countries, which are, in general, the only important sources of cereals. In the event of shortage occurring in the Danubian countries, on the contrary, account must be taken of the fact that the United States also has a commercial treaty with Austria giving most favoured nation treatment but that shipments from Canada, Argentina and Australia are affected by the general duties.

In the following summary are given the more important modifications in so far as they are known to the Institute.

Wheat and its derivatives.

- F. 1 (1-5-31) The import certificate system introduced by the law of 27-9-29, and modified by that of 29-1-30 abrogated (reg. of 27-3-31).
- A. 1 (1-7-31) Wheat: the general duty provided for in the new general tariff of 27-7-30 increased by a supplementary duty of 4.00 gold cr. At the same time the general duty on wheat flour increased by twice the amount of this supplementary duty: 8.00 gold cr.
- A. 2 (15-7-31) Wheat: the duty fixed in the treaty with Hungary abrogated: for shipments of any origin:—
 basic duty 6.00 gold cr.
 supplementary duty 4.00
- A. 3 (15-7-31) Wheat flour: duty fixed in the treaty with Hungary modified: 3.50 gold cr. above the duty on 2 quintals of wheat: $3.50 + 2 \times (6.00 + 4.00) = 23.50$ gold cr.
- A. 4 (12-2-32) Wheat: supplementary duty changed to 5.00 gold cr. Duty on wheat flour: $3.50 + 2 \times (6.00 + 5.00) = 25.50$.
- A. 5 (15-7-32) Commercial treaty with Hungary terminated; shipments of wheat flour of this origin paid the general duties: $8.00 + 2 \times (6.00 + 5.00) = 30.00$ gold cr. The duty of 3.50 gold cr. above the duty on 2 quintals of wheat remains in force as a conventional duty, fixed also in the treaty with Yugoslavia (enforced 9-3-32).
- D. 1 (16-7-32) Imports of flour and milling derivatives of wheat, rye and barley made subject to the production of a special import licence. Provisionally this will be issued unconditionally except for shipments consigned from Hungary.
- D. 2 (4-8-32) Imports from Hungary of wheat flour and semolina made subject to the production of an import licence. The granting of a licence is made conditional on the export to Hungary of Austrian products of the same value.
- B. 1 (21-8-32) A crisis surtax of 100 % added to the turnover tax, giving the following total amounts:—
 for cereals in the grain 4 % *ad valorem*
 for cereal flours (except rye flour, which is exempt
 from the surtax) 14 % " "
 for wheat and maize groats 14 % " "
 for other cereal milling products 10 % " "
- D. 3 (13-9-32) The import licence for flours and other milling products of wheat, rye and barley may be granted immediately by the customs offices, except in the case of shipments consigned from Hungary.
- A. 6 (1-1-33) Wheat flour: new commercial treaty with Hungary, again fixing the duty at 3.50 gold cr. above the duty on 2 quintals of wheat.

- D. 4 (1-1-33) The new treaty with Hungary having entered into force, the obstacles to obtaining an import licence for shipments from this origin were abrogated.
- B. 2 (30-3-33) The official relation between the gold crown and the schilling of legal currency changed from 1 gold cr. = 1.44 schilling to 1 gold cr. = 1.80 schilling.
- A. 7 (30-3-33) Wheat: the supplementary duty reduced to 2.80 gold cr. The duty on flour consequently $3.50 + 2 \times (6.00 + 2.80) = 21.10$ gold crowns. Supplementary duty fixed until 20-6-33; later prolonged).
- B. 3 (3-6-33) Official ratio between the gold crown and the schilling of the legal currency altered to 1 gold crown = 1.83 schilling.

Rye and its derivatives.

- F. 1 (1-5-31) See F. 1 wheat.
- A. 1 (1-7-31) Rye and rye flour: general duties increased by supplementary duties of 4.00 gold cr. and 8.00 gold respectively; see A.1 wheat.
- A. 2 (15-7-31) Rye: the duty fixed in the treaty with Hungary abrogated; for shipments of any origin:—
 basic duty 6.00 gold cr.
 supplementary duty 4.00 " "
- The duty on flour fixed in the new treaty with Hungary at 3.50 gold cr. above the duty on 2 quintals of rye i. e. at this moment at 23.50 gold cr.; see also A. 3 wheat.
- A. 3 (12-2-32) Rye: the supplementary duty reduced to 2.00 gold cr. The duty on rye flour consequently 19.50 gold cr.
- A. 4 (15-7-32) Commercial treaty with Hungary terminated; general duty in force: rye flour 24.00 gold cr.
- D. 1 (16-7-32) See D. 1 wheat.
- A. 5 (5-8-32) Rye: supplementary duty increased to 4.00 gold cr. The duty on rye flour consequently 28.00 gold cr.
- B. 1 (21-8-32) Rye: crisis surtax (see B. 1 wheat). Rye flour exempt from the crisis surtax.
- D. 2 (13-9-32) See D. 3 wheat.
- A. 6 (1-1-33) Rye flour: new commercial treaty with Hungary; duty: 3.50 gold cr. above the duty on 2 quintals of rye.
- D. 3 (1-1-33) See D. 4 wheat.
- B. 2 (30-3-33) See B. 2 wheat.
- A. 7 (30-3-33) Rye: the supplementary duty reduced to 2.00 gold cr. The duty on flour consequently 19.50 gold cr.
- B. 3 (3-6-33) See B. 3 wheat.

Barley and its derivatives.

- F. 1 (1-5-31) See F. 1 wheat.
- A. 1 (1-7-31) Barley and barley meal: general duties increased by supplementary duties of 4.00 and 8.00 gold cr. respectively.
- A. 2 (15-7-31) Meal and other barley milling products: new duty in the commercial treaty with Hungary: 3.50 gold cr. above the duty on 1.5 quintals of barley: $3.50 + (1.5 \times 2.00) = 6.50$ gold cr.
- A. 3 (28-7-31) Barley: new duty in the commercial treaty with Czechoslovakia: 6.00 gold cr. and supplementary duty of 4.00 gold cr.. At the same time the duty on barley malt fixed at 2.00 gold cr. above the duty on 1.33 quintals of barley = 15.30 gold cr. Corresponding to the increase in the duty on whole barley, that on meal, etc., raised to $3.50 + (1.5 \times 10.00) = 18.50$ gold cr.
- A. 4 (15-7-32) Barley meal, etc.: the treaty with Hungary terminated. Products of this origin to pay the general duty of 28.00 gold cr. See A. 5 wheat.
- D. 1 (16-7-32) See D. 1 wheat.
- B. 1 (21-8-32) See B. 1 wheat.
- D. 2 (22-8-32) Imports from Hungary of unroasted barley malt subjected to a licence. For conditions, see D. 2 wheat.
- D. 3 (30-8-32) Imports of barley (except feeding barley) and of unroasted barley malt subjected to a special licence.
- D. 4 (13-9-32) See D. 3 wheat.
- A. 5 (1-1-33) Barley meal, etc.: new commercial treaty with Hungary; duty: 3.50 gold cr. above the duty on 1.5 quintals of barley.
- D. 5 (1-1-33) See D. 4 wheat.
- B. 2 (30-3-33) See B. 2 wheat.
- B. 3 (3-6-33) See B. 3 wheat.

Oats and oat derivatives.

- F. 1 (1-5-31) See F. 1 wheat.
- A. 1 (15-7-31) Oat meal and other milling products: new duty in the commercial treaty with Hungary: 3.50 gold crowns above the duty on 1.5 quintals of oats: 6.50 gold crowns.
- A. 2 (28-7-31) Oats: new duty in the commercial treaty with Czechoslovakia: 3.00 gold crowns without supplement. The duty on oat meal and other milling products: $3.50 + (1.5 \times 3) = 8.00$ gold crowns.
- A. 3 (15-7-32) Oat meal etc.: commercial treaty with Hungary terminated; general duty in force: $8.00 + (2 \times 3.00) = 14.00$ gold crowns.
- B. 1 (21-8-32) See B. 1 wheat.

- A. 4 (2-1-33, Oat meal, etc., new commercial treaty with Hungary; duty: 3.50 gold crowns above the duty on 1.5 quintals of oats.
- D. 1 (5-1-33) Imports of oats subjected to a special licence.
- B. 2 (30-3-33) See B. 2 wheat.
- B. 3 (3-6-33) See B. 3 wheat.

Maize and its derivatives.

- B. 1 (21-8-32) See B. 1 wheat.
- B. 2 (30-3-33) See B. 2 wheat.
- B. 3 (3-6-33) See B. 3 wheat.

General note. — Attention may be drawn to the assistance to be given to the export trade in accordance with the trade treaty between Austria and Hungary, in force from 19 July 1931 until 15 July 1932, the subject being dealt with in a special appendix. In execution of the first part of this a joint council for transport charges was set up. The object of this council was to control and more particularly to lower commercial transport charges as between the two countries (reduction in normal rates). The second part of the appendix made provision in each country for central organisations the function of which was the regulation of the export trade to other countries. These bodies, which were to benefit by exemptions from taxes and by preferences in the matter of distraints, were required to give the exporters in their own country certain credit facilities, including reductions in interest rates. In general (though without any express declaration in this sense), the object was to give a certain preference to the products of the other contracting country. This system however could not work entirely satisfactorily owing to the limitation towards the end of 1931 of the financial means available and to the falling off of imports, which was the result of difficulties in providing for the payment of the imports in question.

It was largely in consequence of these difficulties that the treaty no longer proved satisfactory and notice was given to terminate as on 15 July 1932.

Afterwards an attempt was made openly to adopt preferential treatment, but this policy cannot become operative until after authorisation by the other States which have trade treaties with Austria depending on the most favoured nation clause.

The first treaty concluded on this basis, which came into force on 9 March 1932 was that with Yugoslavia, by which it is agreed that an annual quota of 500,000 quintals of wheat grown in and consigned from Yugoslavia may be imported by Austria on payment of a duty which is 3.20 gold crowns per quintal lower than the general duty on wheat in force for Austrian imports at the date of such importation.

The new treaty with Hungary contains the same provision for the same quantity of wheat and with the same reduction in duty. It is also indicated in this case that, provided there be no opposition from other States with which Austria has concluded a treaty based on the most favoured nation clause, this clause should come into force on 1 July 1933.

4. — BELGIUM AND LUXEMBURG.

(Union Economique Belgo-Luxembourgeoise).

Introduction. — In these two countries horticulture plays a very important rôle and agriculture is also generally highly intensive and directed largely toward the transformation of primary products into more refined products, that is to say, by the feeding of beef cattle and the production of dairy products and eggs. At the same time cereals also occupy a very important place ; during the quinquennial period 1923-27 the following were the average areas harvested :—

	Belgium	Luxemburg
Wheat	145,300 ha.	10,700 ha.
Rye	229,500 "	6,900
Barley.	33,000 "	3,100
Oats	266,100 "	29,000

that is, a total for Belgium of 673,900 ha., 55 %, and for Luxemburg of 49,700 ha., 44 % of the arable area.

At the same time, as human consumption is limited principally to a small percentage of the wheat (which generally is not favoured for breadmaking), and the other cereals are used almost exclusively for stockfeeding, it is evident that, with an extremely dense population, large quantities must be imported. In the Customs Union of Belgium and Luxemburg the production and the import surplus were as follows on the average of the five above-mentioned years (in each case in thousands of quintals) :—

	Production of Belgium	Production of Luxemburg	Import surplus into the Customs Union
Wheat	3,807	135	10,893
Rye	5,341	90	398
Barley	891	40	2,622
Oats.	6,694	303	1,046
Maize	—	—	5,467

It is evident that under these conditions import duties would on the one hand increase the cost of production of animal products and on the other would not prove effective in assisting farmers, who in general employ a large part of their cereals on their own farms, while at the same time the cost of living would increase, as is almost always the case when import duties succeed in raising prices.

Taking this into account, only a very small duty has been levied on flour — a duty, in fact, which protects only the milling industry — and another on oats. These duties consist of a basic duty, which in general does not change, and of a coefficient of majoration, which was increased in accordance with the degree of inflation (the Belgian franc and the belga were stabilised on 26 October 1926) and later with the fall of prices. In this way duties on flour other than oat flour were doubled in 1926 while the duty on oats and oat flour did not change after the coming into force in 1924 of the new law concerning the customs tariff (the first modifications date from 1931 — see A. 1 oats).

In this way the duties at the end of 1930 were:—

Wheat, rye, barley, maize	exempt
Oats	frs. 6.00 per quintal
Flour, etc. of wheat, rye, barley and maize . .	» 4.00 » »
Meal, etc. of oats	» 8.00 » »
Malt	» 17.50 » »

Even on oats the duty remains of very small importance, as is seen by the fact that the average price in December 1927 for home-grown oats available at Antwerp was frs. 163.60 per quintal, while that of the same month in 1929 and 1930 respectively was frs. 132.75 and frs. 68.25.

To increase the price of home-grown wheat a special decree, which came into force on 21 January 1930, subjected the import and transit of wheat and wheat flour to a special licence. Later a further decree established as from 27 October 1930 the necessity of producing on imports of rye, barley and oats, as well as of flour, groats, etc. of rye, barley and oats, a special import licence in so far as these products originate in or are consigned from the U. S. S. R.

As regards Luxemburg a law of 31 January 1930 established that a ministerial decree "might fix the minimum percentage of home-grown cereals (wheat, meslin, rye) which the millers.... should compulsorily employ in the manufacture of flour destined for breadmaking and other food uses in the country". Further, "it may also fix the maximum extraction percentage of flours manufactured from home-grown wheat destined to be mixed with foreign flours for the purpose of internal consumption". By a decree coming into force on 11 February following, the minimum percentage of wheat from home-grown cereals was fixed at 15 %, of which 10 % was to be wheat flour and 5 % rye flour, and in the case of pure rye flour destined for breadmaking (and not for mixing) 15 % of home-grown rye flour, while the maximum extraction percentage of the same home-grown flours is fixed at 65 %.

Finally it should be stated that there is a transmission tax levied on imports, which amounted at first (as from 6 March 1927) to 4 % *ad valorem* for whole cereals and flour, etc. of barley, oats and maize and to 1 % for flour, etc. of wheat and rye, to be reduced on 16 July 1930 to 1 % *ad valorem* for wheat, rye and their flours and to 2 % for the other cereals and flours here enumerated. The value on which the tax is calculated includes the import duty.

In the following summary are given (in so far as they have come to the notice of the Institute) all the measures modifying the situation subsequently to 1 January 1931.

Wheat and its derivatives.

D. 1 (19-3-31) A special permit is necessary for import and transit of wheat, wheat flour, wheat groats and semolina.

B. 1 (26-7-31) Transmission tax changed:—

wheat, rye	2 %	<i>ad valorem</i>
barley, oats, maize	4 %	» »
flour and groats of wheat and rye, pearl barley, oat flakes	2 %	» »
other flours and cereal milling products	4 %	» »

- A. 1 (27-3-32) Import duties temporarily increased by 15 %: cereal flour other than that of oats: 4.60 francs.
- B. 2 (27-3-33) Transmission tax increased by 10 %, namely, from 2 % to 2.2 % and from 4 % to 4.4 %.
- E. 1 (22-9-32) Wheat flour for breadmaking to contain 10% of homegrown wheat.
- D. 2 (22-9-32) During the period in which wheat flour for breadmaking must contain a percentage of home-grown wheat no import licence to be granted for soft wheat of a kind which might be confused with Belgian wheat or for wheat flour.
- B. 3 (16-1-33) Transmission tax increased from 2.2 % to 2.5 % and from 4.4 % to 5.0 %.

Rye and its derivatives.

- B. 1 (26-7-31) See B. 1 wheat.
- A. 1 (27-3-32) See A. 1 wheat.
- B. 2 (27-3-32) See B. 2 wheat.
- B. 3 (16-1-33) See B. 3 wheat.

Barley and oat derivatives.

- B. 1 (26-7-31) See B. 1 wheat.
- A. 1 (27-3-32) Duties increased by 15 % :—

barley meal.	4.60 frs.
barley malt.	20.12 »
- B. 2 (27-3-32) See B. 2 wheat.
- B. 3 (1-8-32) Transmission tax on barley, oat and maize meals and barley malt originating in or consigned from France or Canada: 4% *ad valorem* above the tax payable on products of other origin or consignment.
- B. 4 (16-1-33) See B. 3 wheat.

Oats and oat derivatives.

- A. 1 (14-3-31) Import duty increased :

oats	21.00 frs.
oat meal, groats, etc.	28.00 »
- B. 1 (26-7-31) See B. 1 wheat.
- A. 2 (27-3-32) Duties increased by 15 % :

oats	24.15 Frs.
oat meal, groats, etc.	32.20 »
- B. 2 (27-3-32) See B. 2 wheat.
- A. 3 (1-4-32) Oat groats, semolina and flakes: duty increased to 36.00 francs; temporary supplement of 15 % unchanged: total: 41.40 francs.
- B. 3 (1-8-32) See B. 3 barley.
- B. 4 (16-1-33) See B. 3 wheat.

Maize and its derivatives.

- B. 1 (26-7-31) See B. 1 wheat.
 A. 1 (27-3-32) See A. 1 wheat.
 B. 2 (27-3-32) See B. 2 wheat.
 D. 1 (9-6-32) Imports of maize meal and other milling products subject to special licence (Reg. of 10-5-32).
 B. 3 (1-8-32) See B. 3 barley.
 B. 4 (16-1-33) See B. 3 wheat.

5. — BULGARIA.

Bulgaria is an exporter of cereals. During the quinquennium 1923-1927 production and export surplus were, on the average, as follows (in thousands of quintals) : —

	Production	Export Surplus
Wheat.	9,463	495
Rye.	1,563	78
Barley.	2,243	297
Oats.	996	1
Maize	6,128	1,323

In later years, this situation has not greatly changed. From this fact it is evident that the customs duties could only have an influence during brief periods of shortage. They are, however, relatively high. In addition to the customs duties, a number of taxes of different kinds are also levied :—

- (1) Communal tax : 20 % of the customs duty ;
- (2) Statistical tax : 2.00 paper levas per quintal ;
- (3) Measurement tax : 2.00 paper levas per quintal ;
- (4) Loading tax : 0.24 gold levas per quintal ;
- (5) Tax credited to the fund for extension, improvement and administration of railway stations and ports : 0.072 gold levas per quintal ;
- (6) Franking tax : 3 % of the total sum of all duties, taxes, etc., specified above ;
- (7) Franking tax (second tax) : 3 % *ad valorem* ;
- (8) Processing tax : 1.00 paper leva per quintal.

In the following summary are given the import duties and the total amount of taxes levied at the same time (expressed in paper levas per quintal) :—

	Import duty	Taxes levied on imports
Wheat	162	49
Rye	162	49
Barley	135	42
Oats	162	48
Maize	162	48
Wheat flour and rye flour	324	83

The disastrous fall in wheat prices in 1930 induced the Bulgarian Government to establish, by a law of 25 December 1930, a Department for the Purchase of Bread Cereals and Fodder Cereals for National Requirements and for Export, which had the following objects: (a) to check, if possible, the fall in the prices of cereals and to render them more remunerative; (b) to diminish, as far as possible, the accumulated stocks of unsold cereals; (c) to reduce the farmer's burden of fiscal charges, *e. g.*, by part payment for cereals purchased by means of coupons valid for the payment of taxes.

For many reasons this organisation has not been able to give completely satisfactory results, so that it has been necessary to modify and complete the law, especially by the new measure of 12 October 1931, which, while introducing monopolies for the wheat and rye trades, has completely freed the maize trade, introducing for the latter a premium on exports. In its new form the organisation was in a position to regulate internally the prices of cereals coming under the monopoly and thus to reduce its losses considerably.

Lastly, on 1 July 1932, the law was again revised. The regulations in force from this date onward are as follows: The State continues to fix prices with the intention of maintaining them above those on the free market; the wheat and rye trade monopolies are abolished; in the purchase of cereals the Department may be aided not only by the cooperative societies, but also by private traders chosen *ad hoc*.

Finally two recent measures, based in part on financial criteria, should be indicated: first, a restriction of exports of cereals and cereal flours in accordance with the regulations enforced by the importing countries, and making obligatory a special export licence in cases of shipments to countries, in which the National Bank of Bulgaria has not freely available the sums due in payment of these products; second, a regulation also restricting imports by prescribing that they are subject to the production of a special licence from the said Bank, to be given only for 50 % of the imports during the year 1931.

Bulgaria, like the other Danubian countries, has attempted to obtain preferential duties for its cereal exports. See under Germany (§ 2).

6. — DENMARK.

Denmark is amongst the Free Trade countries which have always found it advantageous to allow the free import of cereals for transformation within the country into dairy products, beef, pork, bacon and eggs. The figures of production and of import surplus for the period 1923-27 give a clear idea of the situation, which, from this point of view, has not subsequently changed (in thousands of quintals):—

	Production	Import surplus
Wheat.	2,321	2,133
Rye.	3,158	1,879
Barley.	7,521	610
Oats.	9,096	231
Maize	—	4,872

The situation is altogether different from that of the Netherlands in that in the latter country permanent meadows are of very great importance, while in Denmark cattle must be fed principally on the products of arable land. The preponderance of oats and barley may be explained in great part by this fact. As a large part of the other cereals also do not leave the farm where they are grown customs duties can have no other effect than an increase in the cost of animal production.

The only limitation to import is the result of the precarious situation of the trade balance, which, since the inflation of September 1931, has been somewhat aggravated. For this reason restrictions on the imports of certain products above 100 % of the import value of the same products in 1931 have been issued. Up to 6 April 1933, this regulation did not refer to whole cereals but only to flour. From that date whole cereals are also included.

Measures of assistance for particular crops have not been undertaken as regards cereals. For this reason it is important to note that Denmark is the only cereal importing country of Europe where at present such conditions exist, resulting in an increase in the area under greenfodder crops, roots, etc. and in a diminution of area under cereals. The reduction is the smallest for wheat, this being explained by the difference in prices that generally has prevailed in recent years. The following table gives the figures in recent years in thousands of ha. :—

Years	All cereals together	Wheat	Rye	Fodder crops
1927.	1,294	111	183	1,092
1928.	1,306	102	146	1,108
1929.	1,321	104	152	1,061
1930.	1,318	101	149	1,115
1931.	1,295	105	134	1,129
1932.	1,282	99	120	1,131

7. — SPAIN.

Spain is a country which, as regards cereal cultivation, is almost self-supporting. Only wheat and barley are of great importance, as will be seen from the area harvested on the average in the five years 1923-27.

Wheat	4,305,000 ha.
Rye	741,000 »
Barley	1,799,000 »
Oats	712,000 »
Maize	457,000 »

a total of 8,014,000 ha., that is to say half of the arable land but only a fifth of the cultivated area.

During the same period production practically covered internal consumption, as shown below (in thousand quintals):—

	Production	Import (—) or export surplus (—)
Wheat	39,893	+ 136
Rye	6,821	— 1
Barley	21,032	— 54
Oats.	5,543	—
Maize	6,159	+ 3,394

The external trade in oats, which is of very small importance, is not recorded separately but together with that of "other cereals".

The agrarian structure of the country is such that the cereals mentioned here are cultivated principally in the very large holdings. Yields are generally rather small under such conditions. The only exception is maize and it is this crop particularly that has in recent years been improved.

In any case the tariff situation for a long time has not permitted the import of cereals except in times of great scarcity. In addition, a law published on 21 May 1930 further laid down that the import of wheat and wheat flour was to be prohibited as long as the price of that cereal on the regulating markets of Castile were not above 53.00 pesetas (legal currency), while the import of maize was already prohibited by decree on 11 January of the same year. Imports of maize were allowed again from 27 August 1930.

The minimum duties, i. e., those applicable to imports originating in and consigned from countries which have a treaty of commerce with Spain are as follows:—

Wheat.	14.00 pesetas per quintal
Rye and barley	12.00 " " "
Maize	10.00 " " "
Oats (under "other cereals").	8.00 " " "
Wheat flour	21.00 " " "
Flour of other cereals.	9.00 " " "

The maximum duties are treble or quadruple the minimum duties.

Of the duties 25 % is levied in gold pesetas or in equivalent currency, 75 % in paper pesetas with a supplement fixed every 10 days.

The modifications of the customs duties as well as of other stipulations are given in the following summary so far as they have come to the knowledge of the Institute:—

Wheat in the grain.

- E. 1 (16-7-31) Control of the trade in wheat and wheat flour to be maintained for a further year. Prices of sound wheat to fluctuate between pesetas 46 and pesetas 53 per quintal.
- C. 1 (13-4-32) Import of a quota of 500,000 quintals of whole wheat authorized. Each shipment to be accompanied by a special import licence.

- A. 1 (13-4-32) Import duties to be fixed every ten days in accordance with internal prices First level: pesetas 8.50.
- A. 2 (21-4-32) Duty: pesetas 8.00.
- C. 2 (30-4-32) Import of a further quota of 1,000,000 quintals permitted under conditions indicated under C. 1.
- A. 3 (1-5-32) Duty: pesetas 5.50
- A. 4 (11-5-32) Duty: pesetas 5.75.
- A. 5 (21-5-32) Duty: pesetas 6.00.
- C. 3 (27-5-32) Import of a further quota of 1,000,000 quintals permitted under conditions indicated under C. 1.
- C. 4 (16-6-32) Import of a further quota of 250,000 quintals permitted under conditions indicated under C. 1.
- A. 6 (1-7-32) Duty: pesetas 6.50.

Rye, barley, oats.

No information.

Maize in the grain.

- A. 1 (7-11-31) Duty: pesetas 7.00.
- A. 2 (3-4-32) Duty: pesetas 5.00.
- A. 3 (28-5-32) Duty: pesetas 7.00
- A. 4 (1-7-32) Duty: pesetas 8.00.
Duty to be fixed every ten days.
- A. 5 (11-7-32) Duty: pesetas 7.50.
- A. 6 (1-8-32) Duty: pesetas 7.00.
- A. 7 (11-9-32) Duty: pesetas 7.50.
- A. 8 (21-9-32) Duty: pesetas 8.50.
- A. 9 (1-1-33) Duty: pesetas 9.00.
- A. 10 (11-1-33) Duty: pesetas 8.50.
- A. 11 (11-2-33) Duty: pesetas 9.00.
- D. 1 (8-5-33) Imports subjected to special licence. The object of this measure is to prevent too great an influx at the moment that 450,000 quintals of Argentina maize have to be imported as against an export of Spanish rails to Argentina.
- A. 12 (11-5-33) Duty: pesetas 6,75.
- A. 13 (21-5-33) Duty: pesetas 6,70.
- A. 14 (1-6-33) Duty: pesetas 6,75.
- A. 15 (11-6-33) Duty: pesetas 6,80.
- A. 16 (1-7-33) Duty: pesetas 6,70.

8. — ESTONIA.

Owing to its climate, the nature of its soil and its geographical conditions, the territories which now form the Estonian Republic were already before the war specialised on livestock production. Although the military forces passing through the Baltic Provinces destroyed a large part of the equipment and livestock and the land reforms in the new States had at first a somewhat unfavourable influence on the normal development of these industries, the situation changed later and the Baltic States are now exporters of a number of animal products.

It is in accordance with this situation that for a long time the import of fodder cereals was free or subject only to a very low duty. For wheat, on the contrary, it was desired, as in the other Baltic Republics and also in many other States, both of recent formation and of older origin, to become as independent as possible of other countries. This desire was, without doubt, explicable in view of the very precarious financial situation of the country.

At the end of 1928 the import duties were as follows, expressed in gold francs per quintal (1 gold franc = 0.73 Estonian crowns):—

Cereals in the grain, other than wheat	free
Wheat	gold frs. 10.00
Flour of all kinds	» » 15.00

In 1930, however, in view of the agricultural depression, the necessity was felt to assist cereal producers. At first there was instituted a monopoly for rye and rye-flour (in force as from 19 July 1930), which consisted primarily in the purchase of rye from the producers at a fixed remunerative price. In addition the Government caused to be imported by private persons under special conditions the quantities of rye of which it had need. The Government obtained at the same time the right to organise a monopoly for wheat but in 1930 it limited itself to an increase in the relative duties (7 November), while those for barley and flour other than wheat flour had been already modified on 22 July.

These duties in gold francs are reduced as from 20 July 1931 into terms of Estonian crowns and at the same time increased or rounded off. The situation previous to 1931 and that on 20 July 1931 are given below:—

	Gold francs 1930	Estonian crowns 20-7-31
Wheat	15 00	11.00
Rye	exempt	exempt
Barley	10.00	7.50
Oats	exempt	2.00
Maize	»	5.00
Bolted wheat flour	32.00	29.00
Unbolted wheat flour	25.00	18.00
Flour, etc. of rye	9.00	5.00
Flour, groats and barley malt	20.00	15.00
Flour, etc. of oats	9.00	15.00
Maize flour	9.00	15.00

The duty on bolted wheat flour was already increased on 12 March 1931 to gold francs 37.00 (Estonian crowns : 27.01). On 24 March 1931 a commercial treaty with Lithuania entered into force, according to which shipments of wheat of that origin and consignment are admitted with a preferential reduction of 20 % on the minimum duty (Baltic clause).

The power of setting up a monopoly for wheat also was utilised in 1931 only in order that a contract might be arranged with the millers of the country. By the terms of this contract the Government undertook to maintain a high duty on wheat and a very considerable margin between this duty and that on flours, while on their part the millowners covenanted to purchase all the native wheat tendered to them up to 15 September at a favourable price and also not to change the price of wheat flour.

All these measures were still considered insufficient so that, in order better to regulate the internal market, the Government took over as from 11 November 1931 the import monopoly of all cereals and their products. The monopoly for rye, which is of an internal character, is not affected by this regulation. Under this form of monopoly the importers may continue themselves to import within the limits to be fixed by the Government and under special conditions. Maize was exempted from such restriction on 22 June 1932, but only after the duty had been increased on 2 June to Estonian crowns 20.00.

As from 25 April 1931 there also exists in Estonia a form of import certificate, inasmuch as the mills have the right to import without payment of import duties 1.45 kg. of whole wheat for each quintal of bolted wheat flour which they have exported during the preceeding year.

9. — FINLAND.

The situation of this country, from the point of view of its agricultural structure and the nature of its development, greatly resembles that of Estonia, though it should be added that the importance of cereal crops is still more limited. For this reason livestock are fed much more than in other countries with the products of fodder crops, which alone cover almost half of the arable land.

The attempt has been made in Finland also to make the country as independent as possible of foreign supplies. For this reason the tariff of 1921 contained these somewhat high duties, given in each case in Finmarks per quintal :—

Wheat	75
Rye and barley	25
Oats	5
Maize	5
Unsifted wheat flour	95
Sifted or granulated wheat flour	120
Unbolted rye flour	35
Bolted rye flour	40

These duties, partly for fiscal reasons, are revised each year, but remained the same for the above products until the end of 1928. On 1 January 1929

they were considerably increased and other increases are to be noted for 1 January of the following years. The changes have been as follows:—

	1-1-29	1-1-30	1-1-31	1-1-32	1-1-33
Wheat	—	100	—	125	130
Rye	50	75	125	—	—
Barley	50	75	100	—	—
Oats	15	25	—	—	—
Maize	exempt	—	—	—	—
Unsifted wheat flour	100	125	—	150	—
Sifted wheat flour, etc. . . .	120	150	210	250	—
Unbolted rye flour	65	90	145	—	—
Bolted rye flour	95	130	225	—	—

It must further be added that from 1931 onward the duty on rye and rye flour has been fixed each quarter in relation to the price of imported rye so that when imported rye costs not more than Fmk. 125 per quintal the duties are those indicated above (maximum duties). When the price, which is fixed in advance on the basis of the then existing situation, is from Fmk. 126 to Fmk. 150 (which occurred only during the second and third quarters of 1932), the duties amount respectively to Fmk. 100, 120 and 190, and with higher prices, the duties are reduced to Fmk. 75, 95 and 150.

During the period 25 October to 31 December 1932 a duty of Fmk. 20 was levied on maize; the duty of Fmk. 250 levied in 1932 and 1933 on sifted wheat flour may be reduced under special conditions to Fmk. 150 in the case of imports for the manufacture of macaroni.

As a measure of internal character the resolution of 30 September 1931, concerning the establishment of a milling percentage for home-grown rye, the percentage of consumption for home-grown oats and the percentage of mixture for flour of home-grown rye, may be mentioned. As from 1 October the milling percentage for home-grown rye was established at 30 %, the consumption percentage for home-grown oats at 70 % and the percentage of mixture for flour from home-grown rye at 30 %. These percentages have been subsequently modified on several occasions.

Finally it must be mentioned here that, according to the law of 29 December 1928, on the export of fowls' eggs or of pork and bacon (in each case exclusively products inspected for quality), import certificates are delivered, which may be employed for the payment of customs duties on the same products, as well as on rye and barley. These certificates, which are valid for 6 months, may be given only to cooperative organisations. They are valid for a total equivalent to the minimum duties to be paid if the exports had been made at the time of importation. From 22 April 1931 it is also possible with the same certificates to pay the duties on rye flour and barley flour.

10. — FRANCE.

Introduction. — In France the agricultural economy is based largely on cereal production. On the average for the period 1923-1927 the areas of the respective cereal crops harvested were as follows:—

Wheat	5,439,000 ha.
Rye	845,000 »
Barley	698,000 »
Oats	3,473,000 »
Maize	343,000 »

that is, for the five most important cereals (amongst which wheat and oats have an absolute preponderance), a total of 10,798,000 ha. or nearly 20 % of the total area of the country and nearly 49 % of the arable land. It should be noted also that for all of these products there is a surplus of imports, which is considerably reduced, however, in the event of a large crop, especially in the case of wheat. Since 1892 the Government has pursued the clearly defined policy of protecting home agriculture against low priced foreign products and this tradition was intensified when imports from the large cereal-exporting countries brought the danger that prices might fall below cost of production. After the stabilisation of the French franc (25 June 1928), customs duties for most products were still comparatively low. They were as follows for cereals in the grain (in francs per quintal): wheat: 35.00; rye: 15.00; barley: 15.00; oats: 15.00, maize: 10.00. For wheat flour there are three categories according to bolting percentages, the first comprising flour bolting 70 % and over, the second flour bolting 60 % to 70 %, and the third flour bolting 60 % and under. The duties were respectively 60.00, 72.00 and 80.00 francs per quintal. For the other kinds of flour and meal the duties were 30.00 francs per quintal for rye flour, 25.00 for barley meal, 22.50 for oat meal and 18.00 for maize meal.

In 1929 wheat prices, which generally tend to rise at the end of a trade season, began, on the contrary, to fall owing to the decline on the large free import markets, necessitating the provisional increase for two months (commencing May 24) of the customs duties on wheat to 50.00 francs and of those on wheat flours to 80.00, 100.00 and 115.00 francs per quintal.

The wheat crop of 1929 was very heavy, reaching 91,786,000 quintals or 20 % above the average of the preceding six years. This resulted in a further fall in France, whereas no corresponding movement was recorded on the Liverpool and London markets. A different type of measure became necessary and was introduced in the law of 1 December 1929 on the wheat trade. By this law it could, by decree, "be fixed what *minimum* percentage of home-grown wheat the millers must compulsorily employ in the manufacture of flour to be used exclusively in the making of bread or other foodstuffs". The law also provides for "fixing by decree the bolting limits of bread flours for home consumption". On the basis of this law the minimum percentage of home-grown wheat to be used in the manufacture of flour for breadmaking was fixed at 97 as from 5 December onwards.

The same law also stipulates that under certain conditions and after a period of 3 months from the passage of the law, exported wheat, « whether transformed or not into flour, will confer a claim to a reimbursement of customs duties » Further legislation maintained this provision up till 31 July 1930 and additional funds up to 200,000,000 francs were assigned.

A law, dated 30 April 1930, empowers the Minister of Agriculture within the limits of a credit of 30 million francs, to incur the expenditure necessary to maintain a reserve stock of wheat and flour to ensure the proper feeding of the population.

Owing, however, to the fall in wheat prices on the large import markets since the beginning of 1930, French prices also could no longer be maintained.

A special measure taken against Australia, with which France had no commercial treaty at the time, had very little practical effect. As from 17 January 1930 wheat and wheat flour originating in or consigned from Australia, are, apart from the duties of the general tariff, called on to pay a surtax, equivalent to a double rate of duty.

For oats the situation, after the crop of 1929, also became grave ; on the key markets a tendency to fall had already been evident since the crop of 1928 and when, in 1929, France had a very heavy oat crop, prices fell abruptly despite the customs duty. This duty was fixed in the commercial treaty with Czechoslovakia (which entered into force on 24 April 1929), but on condition that an increase might take place in the event of a change of more than 20 % in the official index numbers of wholesale prices as compared with those of July 1928. This actually took place in January 1930, with the result that, as from the 19 January, the duty on oats was increased to 21.00 francs.

On 20 May 1930 the duties on wheat and wheat flours were radically increased ; wheat to 80.00 francs and wheat flours to 128.00, 160.00 and 185.00 francs.

For barley a condition of the same character as for oats was fixed in the treaty with Czechoslovakia. In this case an increase (to 21.00 francs) could be enforced on 19 July 1930 together with a new change in the oats duty to 30.00 francs, while for rye also the duty was brought up to 21 00 francs. On each occasion the duties on meal, crushed grain and bran meal containing not more than 10 % of flour were increased in proportion.

The 1930 wheat crop, in contrast to that of 1929, was very poor, amounting to only 62,081,000 quintals, 66 % of the preceding crop. For this reason it was necessary on 26 July, directly after the harvest to lower to 90 % the minimum percentage of home-grown wheat for the manufacture of flour to be used in bread-making. Since this date wheat prices have been successfully maintained at a very high level for two years, thanks to the customs duties and the regulation of the composition of flour for breadmaking.

The duty on maize was increased as from 12 September 1930 to 24.00 francs. It should further be stated that, under the new French-Rumanian commercial treaty, which entered into force provisionally on 15 September of the same year, on an annual quota of at least 800,000 quintals of small grain maize, yellow in colour, having the characteristics of the so-called Bessarabian maize and destined for the feeding of livestock, including poultry, a reduction of 30 % in the

minimum duty was arranged, so that this duty amounted to 16.80 francs only. A decree enforced on 5 December fixes the amount for the last quarter of 1930 at 200,000 quintals.

A further characteristic of the French customs tariff is that it is in two columns, the first containing the general and the second the minima duties. For cereals these two duties remained the same up to 14 July 1931 (see A. 1 wheat) except for malt (whether whole or as flour) for which the minimum duty was 15 % *ad valorem* and the general duty was double. General duties were applicable only to products originating in or consigned from countries, which have no commercial treaty with France on the basis of the most favoured nation clause. From 1928 to 1932 the situation as regards cereals was as follows, only the chief cereal exporting countries being here cited.

Countries	Products	Duties
Bulgaria . . .	Whole cereals	minima
» . . .	Flours, etc.	general
Hungary . . .	All products.	minima
Poland . . .	Barley in grain	minima
» . . .	Crushed barley, malt.	minima
» . . .	Other cereals, flours, etc.	general
Rumania . . .	All products.	minima
Yugoslavia . .	All products.	minima
Czechoslovakia	Cereals, flours, etc.	minima
Canada . . .	Malt	intermediary (21 % <i>ad val.</i>)
» . . .	Other cereals, flours, etc.	minima
United States	Wheat and maize, also their flours and baking products.	minima
» »	Other cereal, flours, etc.	general
Argentina . .	All products.	general
India . . .	Cereals, flours, etc.	general
Australia . .	All products.	general

It should be added that, as regards Czechoslovakia previous to 1929 and as regards Hungary previous to 1930, theoretically the situation was less favourable, a considerable part of these products being classed under the general tariff.

Finally, it should be noted with respect to the French commercial system, that imports of cereals originating from the French Colonies and African Territories under French mandate, are free, on condition of direct import and production of a certificate of origin; this is of particular importance in the case of maize imports. Algeria, as regards a large part of French law, including that relating to foreign trade, forms an integral part of France, so that, for all products, its trade with the latter is free. For Tunis also cereals are exempt from the payment of duty. For the French zone of Morocco, exemption from customs duty is limited to certain quantities of specified products. These quotas, which are fixed annually for the period 1 June-31 May and refer to

total imports into France and Algeria, were as follows (in thousands of quintals):—

	1929-30	1930-31
Wheat	1,700	1,200
Rye	5	5
Barley	3,000	3,000
Oats	250	250
Maize	600	600
Hard wheat flour and groats	100	100

Taking into consideration the quantities admitted free of duty and originating from the countries named above, the following table is obtained, in which column A contains the imports from the French Colonies, Protectorates, etc., and column B those from foreign countries (in thousands of quintals):

	1929		1930	
	A	B	A	B
Hard wheat	1,990	131	2,146	608
Soft wheat	1,441	10,557	2,204	5,399
Rye	15	179	13	214
Barley	59	1,101	457	1,077
Oats	698	613	665	19
Maize	1,682	6,511	1,109	7,001
Wheat flour	119	27	241	16

(The imports of flour and meal of the other cereals named are unimportant).

Besides the duty an import tax is also levied, amounting to 2 % *ad valorem*, based on price plus import duty.

After this brief account the situation as on 1 January 1931 may be thus summarised. The tariff barrier was already fairly high, especially for wheat. The price of this cereal was, moreover, protected by regulations as to the minimum proportion of home-grown wheat to be employed in the manufacture of flour for breadmaking.

In the following notes are given, in chronological order, the most important measures, in so far as they are known to the Institute, taken to influence prices.

Wheat and its derivatives.

- E. 1 (15- 4-31) Minimum proportion of home-grown wheat for breadmaking 90 %.
- E. 2 (18- 4-31) Minimum proportion of home-grown wheat for breadmaking 80 %.
- E. 3 (28- 4-31) Minimum proportion of home-grown wheat for breadmaking 75 %.
- E. 4 (17- 6-31) Minimum proportion of home-grown wheat for breadmaking 70 %.

E. 5 (1- 7-31) Minimum proportion of home-grown wheat for breadmaking 75 %.

C. 1 (3- 7-31) Quota for imports into France or Algeria for the period 1-6-31 to 31-5-32 of products originating in and consigned from the French zone of Morocco:—

Wheat: 1,700,000 quintals of which: in the period 1-6 to 31-8: 534,000 quintals; in the period 1-9 to 30-11: 780,000 quintals; in the period 1-12-31 to 31-5-32: 386,000 quintals.

Hard wheat flour and groats: 100,000 quintals.

E. 6 (4- 7-31) Minimum proportion of home-grown wheat for breadmaking 80 %.

E. 7 (10- 7-31) Minimum proportion of home-grown wheat for breadmaking 85 %.

A. 1 (14- 7-31) The minimum duties not changed but the maximum duties, which hitherto had been equal to the minimum duties, were doubled. (See introduction).

E. 8 (25- 7-31) Minimum proportion of home-grown wheat for breadmaking 90 %.

E. 9 (15- 8-31) The types of soft wheat flour and hard wheat flour bolting 90 % are abolished.

E. 10 (1- 9-31) The types of soft wheat flour and hard wheat flour bolting 80 % are abolished.

A. 2 (25- 9-31) 10 % of the total quantity of wheat to be imported into France during each commercial season is to be purchased in Hungary at the world price and to be subject, without reduction, to the minimum tariff rate. The Hungarian Government will be remitted a sum taking into account a remunerative price for this wheat, but not exceeding 30 % of the customs duty.

D. 1 (11-11-31) For all imports of foreign flour the production of a nominative and non-transferable import licence is necessary, mentioning the quantity for which it is valid; these stipulations do not apply to denatured wheat not for human consumption.

B. 1 (15-11-31) Surtax to compensate for exchange variations weighing on imports of commodities originating in or consigned from countries having depreciated currencies (only countries interested in the trade in cereals with France):—

Great Britain	15 %	<i>ad valorem</i>
Argentina	10 %	»
India	7 %	»
Australia	15 %	»

(This surtax does not apply to the shipment of wheat in the grain).

E. 11 (25-11-31) Minimum proportion of home-grown wheat for breadmaking 97 %.

- B. 2 (10-12-31) Surtax to compensate for exchange variations weighing on imports of commodities produced in or consigned from countries having depreciated currencies (modifications and additional surtaxes):—

Canada	11 %	<i>ad valorem</i>
Argentina	15 %	» »
India	15 %	» »

- E. 12 (31- 1-32) Minimum proportion of home-grown wheat for breadmaking 90 %.

- E. 13 (10- 2-32) Minimum proportion of home-grown wheat for breadmaking 85 %.

- E. 14 (13- 2-32) Minimum proportion of home-grown wheat for breadmaking 80 %.

- D. 2 (17- 2-32) For all imports of foreign wheat flour the production of a nominative and non-transferable import licence is necessary, mentioning the quantity for which it is valid.

- E. 15 (25- 2-32) Minimum proportion of home-grown wheat for breadmaking 75 %.

- E. 16 (15- 3-32) Minimum proportion of home-grown wheat for breadmaking 70 %.

- E. 17 (20 -3-32) Minimum proportion of home-grown wheat for breadmaking 65 %.

- E. 18 (27- 3-32) Minimum proportion of home-grown wheat for breadmaking 60 %.

- B. 3 (1- 4-32) Import taxes :—

Cereals in the grain	2 %	<i>ad valorem</i>
Cereal flour and crushed cereals	4 %	» »

- E. 19 (2- 4-32) Minimum proportion of home-grown wheat for breadmaking 55 %.

- C. 2 (3- 4-32) Additional quota, to be imported into France or Algeria in the period 1-6-31 to 31-5-32, of products originating in and consigned from the French zone of Morocco :—

Soft wheat.	60,000 quintals
Hard wheat	150,000 »

- A. 3 (7- 5-32) 10 % of the total quantity of wheat which must be imported into France in each commercial year to be purchased in Yugoslavia at the world price and subject, without reduction, to the minimum tariff rate. The Yugoslavian Government will be remitted such a sum as to allow a remunerative price for this wheat but not exceeding 30 % of the customs duty.

- E. 20 (8- 5-32) Minimum proportion of home-grown wheat for breadmaking 60 %.

- A. 4 (24- 5-32) 10 % of the total quantity of wheat which must be imported into France in each commercial year to be purchased in Rumania at the world price and subject, without reduction, to the minimum tariff rate. The Rumanian Government will be remitted a sum, as to allow a remunerative price for this wheat but not exceeding 30 % of the customs duty.
- E. 21 (25- 5-32) Minimum proportion of home-grown wheat for breadmaking 55 %.
- E. 22 (28 -5-32) Minimum proportion of home-grown wheat for breadmaking 50 %.
- C. 3 (4- 6-32) Quota to be imported into France or Algeria in the period 1-6-32 to 31-5-33 of products originating in and consigned from the French zone of Morocco :—
- | | |
|---------------------------------------|--------------------|
| Soft wheat | 1,650,000 quintals |
| Hard wheat | 150,000 » |
| Hard wheat flour and groats | 60,000 » |
- E. 23 (17- 6-32) Minimum proportion of home-grown wheat for breadmaking 55 %.
- E. 24 (1- 7-32) Minimum proportion of home-grown wheat for breadmaking 65 %.
- E. 25 (10- 7-32) Minimum proportion of home-grown wheat for breadmaking 75 %.
- A. 5 (22-7-32) The commercial treaty with Canada having come to an end, the entry into France of shipments originating in or consigned from Canada on payment of the minimum customs duty will not be permitted, unless these shipments have been made before 17 June 1932. Subsequently: general duty (See A. 1).
- E. 26 (2- 8-32) Minimum proportion of home-grown wheat for breadmaking 85 %.
- E. 27 (4- 8-32) Minimum proportion of home-grown wheat for breadmaking 97 %.
- E. 28 (28- 9-32) The bolting percentage of bread flours not to exceed 66 %.
- E. 29 (3-12-32) Minimum percentage of home-grown wheat for breadmaking: 99 %.
- E. 30 (14-12-32) Provisions relating to bolting percentage for flours at 66 % provisionally abolished.
- E. 31 (10-2-33) The Commissariat Department is charged with the purchase before 31-5-33 of home-grown wheat up to the value of 300 million francs in order to form a reserve stock. The prices to be paid are those of the official quotation for spot wheat on the free market of Paris (reg. of 9-2-33 based on law of 26-1-33).
- E. 32 (9-3-33) The price to be paid for wheat for the building up of stocks fixed at frs. 115.00 per quintal (The average price on the Paris market for the month of March was frs. 99.75).
- E. 33 (27-3-33) Minimum proportion of home grown wheat for breadmaking 100 %.
- B. 4 (20- 3-33) Surtax to compensate for exchange variations weighing on imports of commodities originating in or consigned from countries having depreciated currencies (new surtaxes) :—
- | | |
|---------------------------------|------------------------|
| U. S. S. R. | 25 % <i>ad valorem</i> |
| Union of South Africa | 15 % » » |

- A. 6 (10-4-33) System of regulation of drawbacks on part of import duties on Hungarian wheat (see A. 2) abrogated.
- E. 34 (16-4-33) A new credit for 20,000,000 frs was placed at the disposal of the Government to encourage the use of wheat for objects other than human consumption or the making of alcohol.
- C. 4 (1-6-33) Quota to be imported into France or Algeria during the period from 1-6-33 to 31-5-34 of products originating in or coming from the French zone of Morocco :

Soft wheat	1,650,000 quintals
Hard wheat	150,000 "
Hard wheat flour and groats	60,000 "

to be distributed during the year as follows: soft wheat: from 1-6 to 31-8: 640,000 quintals; from 1-9 to 30-11: 505,000 quintals; from 1-12-33 to 31-5-34: 505,000 quintals.

Hard wheat: from 1-6 to 31-8: 60,000 quintals; from 1-9 to 30-11: 45,000 quintals; from 1-12-33 to 31-5-34: 45,000 quintals.

- A. 7 (10-6-33) New provisional treaty with Canada. Whole wheat and its flours originating in and consigned from Canada will benefit on their entry into France from minimum duties (increased by the compensatory surtax of 11 % *ad valorem*); as regards other cereals the general tariff is still applicable.

General note on wheat. — During the whole period when the import trade in wheat and wheat flours was so limited the most important factor in establishing prices was the size of the national harvest. Although a comparison between average prices during the trade year and the size of the harvest from the beginning of the same year cannot supply an exact idea of the price movement by reason of the fact that the influence of the coming harvest is already making itself felt, the following summary table is at any rate instructive.

	Harvest for the year (in thousands of quintals)	Average price during the year as follows (in francs per quintal)
1927	75,150	162.00
1928	76,554	155.35
1929	91,786	139.40
1930	62,081	175.00
1931	71,882	167.10
1932	90,182	108.15 (11 months)

Rye and its derivatives.

- A. 1 (29-4-31) Import duty:—
- | | |
|----------------------------|------------------------|
| rye in the grain | 35.00 frs. per quintal |
| rye flour | 70.00 " " " |
- C. 1 (3-7-31) Quota to be imported into France or Algeria during the period 1-6-31 to 31-5-32 of rye in the grain originating in and consigned from the French zone of Morocco : 5,000 quintals.

- A. 2 (14- 7-31) See A. 1 wheat.
- B. 1 (15-11-31) See B. 1 wheat.
- B. 2 (10-12-31) See B. 2 wheat.
- D. 1 (17- 2-32) See D. 2 wheat.
- B. 3 (1- 4-32) See B. 3 wheat.
- A. 3 (22- 7-32) See A. 5 wheat
- C. 2 (3- 8-32) Quota to be imported into France or Algeria during the period 1-6-32 to 31-5-33 of rye in the grain originating in and consigned from the French zone of Morocco : 5,000 quintals.
- A. 4 (17- 9-32) Import duty:—
- | | |
|--------------------------|------------------------|
| rye in the grain | 40.00 frs. per quintal |
| rye flour | 80.00 " " " |
- B. 4 (20- 3-33) See B. 4 wheat.
- C. 3 (1-6-33) Quota of whole rye for importation into France or Algeria during the period from 1-6-33 to 31-5-34, originating in or consigned from the French zone of Morocco : 5,000 quintals.

Barley and its derivatives.

- C. 1 (3- 7-31) Quota to be imported into France or Algeria during the period 1-6-31 to 31-5-32 of whole barley originating in and consigned from the French zone of Morocco : 3,000,000 quintals.
- A. 1 (14- 7-31) See A. 1 wheat.
- B. 1 (15-11-31) See B. 1 wheat.
- B. 2 (2- 2-31) Anti-dumping duty on malted barley (whole and meal) produced in or consigned from Germany: 80.00 francs per quintal (the import duty on these products is 15 % *ad valorem*).
- B. 3 (10-12-31) See B. 2 wheat.
- B. 4 (1- 4-32) Import taxes:—
- | | |
|----------------------------------|-----------------------|
| Barley, in the grain | 2 % <i>ad valorem</i> |
| Barley meal and crushed barley . | 4 % " " |
| Malted barley, whole | 2 % " " |
| Malted barley, meal | 4 % " " |
- A. 2 (22- 7-32) See A. 5 wheat.
- C. 2 (3- 8-32) Quota to be imported into France or Algeria during the period 1-6-32 to 31-5-33 of whole barley originating in and consigned from the French zone of Morocco : 3,000,000 quintals.
- B. 5 (20- 8-32) Anti-dumping duty on malted barley meal originating in or consigned from Germany : abrogated.
- B. 6 (31- 8-32) Anti-dumping duty on malted barley (whole and meal) originating in or consigned from Czechoslovakia : 30.00 francs per quintal.

- C. 3 (17-9-32) Imports of whole barley and barley meal subject to quota for the period from 22-9-32 to 31-12-32.—
- | | |
|-------------------------------|------------------|
| Barley in the grain | 262,000 quintals |
| Barley broken, etc. | 135 " |
| Barley meal | 250 " |
- C. 4 (27-10-32) Provisional quota for malt imports for the period from 27-10-32 to 27-11-32.—
- | | |
|----------------------|-----------------|
| whole malt | 12,859 quintals |
| malt flour. | 8 quintals |
- A. 3 (27-11-32) Import duties (minima):—
- | | |
|--------------------------------|------------------------|
| malted barley, whole | 40.00 frs. per quintal |
| malted barley meal. | 60 00 " " " |
- C. 5 (1-1-33) Quota for the first quarter of 1933:—
- | | |
|-------------------------------|------------------|
| Barley in the grain | 225,000 quintals |
| Barley broken, etc. | 110 " |
| Barley meal | 205 " |
- B. 7 (8-3-33) Anti-dumping duty on malted barley whole originating in or consigned from Germany: reduced to 30.00 francs per quintal.
- B. 7 (20-3-33) See B. 4 wheat.
- B. 8 (20-4-33) Import tax: malted barley, whole 4 °, *ad valorem*.
- B. 9 (13-5-33) Every person, who, in connection with the importation of products subject to quotas, has the benefit either of an importing licence or of a quota certificate, will be required to pay a licence fee at the following rates:—
- | | |
|------------------------------|------------------------|
| for whole barley | 25,00 frs. per quintal |
| for crushed barley | 35,00 " " " |
| for barley meals | 40,00 " " " |
- B. 10 (18-5-33) Anti-dumping surtax on malt originating in or consigned from Czechoslovakia: abrogated.
- C. 6 (1-6-33) Quota of whole barley to be imported into France or Algeria during the period from 1-6-33 to 31-5-34, originating in or consigned from the French zone of Morocco: 650,000 quintals.
- C. 7 (1-7-33) Quota for third quarter 1933:
- | | |
|------------------------------|------------------|
| Barley in grain. | 225,000 quintals |
| Crushed barley, etc. | 110 " |
| Barley meals | 205 " |

Oats and oat derivatives.

- C. 1 (3-7-31) Quota for import into France or Algeria for the period from 1-6-31 to 31-5-32 of oats originating in and consigned from the French zone of Morocco: 250,000 quintals.
- A. 1 (14-7-31) See A. 1. wheat.
- B. 1 (15-11-31) See B. 1 wheat.
- B. 2 (10-12-31) See B. 2 wheat.
- B. 3 (1-4-32) See B. 3 wheat.

- C. 2 (3-8-32) Quota for import into France or Algeria during the period from 1-6-32 to 31-5-33 of oats originating in or consigned from the French zone of Morocco : 250,000 quintals.
- A. 2 (22-7-32) See A. 5 wheat.
- A. 3 (17-8-32) Import duties (minimum duties):—
- | | |
|---------------------------|------------|
| whole oats | frs. 40.00 |
| oats broken, etc. | » 59.00 |
| oat meal | » 66.50 |
- B. 4 (15-11-32) The compensation surtax no longer to be levied on the import of seed oats accompanied by an official certificate declaring that they are selected seeds.
- B. 5 (21-3-33) See B. 4 wheat.
- C. 3 (1-6-33) Quota, to be imported into France or into Algeria during the period from 1-6-33 to 31-5-34 of oats originating or consigned from the French zone of Morocco : 65,000 quintals.

Maize and its derivatives.

- C. 1 (3-7-31) Quota for import into France or Algeria during the period from 1-6-31 to 31-5-32 of maize originating in and consigned from the French zone of Morocco : 65,000 quintals.
- B. 1 (15-11-31) See B. 1 wheat.
- B. 2 (10-12-31) See B. 2 wheat.
- B. 3 (1-1-32) Surtax no longer to be applied to shipments of maize in the grain.
- A. 1 (1-2-32) Reduction of duty on small-grained so-called Bessarabian maize, in the new corollary to the commercial treaty with Rumania, of 40 % of the minimum duty, that is, to frs. 14.40.
- C. 2 (31-3-32) Quota of small-grained so-called Bessarabian maize, to be imported under reduced duty during the year 1932: 800,000 quintals.
- C. 3 (22-6-32) Quota of small-grained so-called Bessarabian maize, to be imported under reduced duty during the year 1932 increased to 900,000 quintals.
- C. 4 (3-8-32) Quota for import into France or Algeria during the period from 1-6-32 to 31-5-33 of maize originating in and consigned from the French zone of Morocco: 600,000 quintals.
- A. 2 (17-9-32) Import duties (minimum duties):—
- | | |
|--|------------|
| maize | frs. 40.00 |
| maize for the manufacture of starch and glucose; under | |
| customs control: reduction of 35 % on the tariff for maize | » 26.00 |
| maize, small-grained so-called Bessarabian, in quota . . | » 24.00 |
| maize, broken and bran not containing more than 10 % of | |
| meal. | » 64.00 |
| maize meal. | » 72.00 |

- C. 5 (23-11-32) Quota of small-grained so-called Bessarabian maize, to be imported under reduced duty during the year 1932 increased to 1,000,000 quintals.
- C. 6 (6-1-33) Quota of small-grained so-called Bessarabian maize, to be imported under reduced duty during the year 1933: 800,000 quintals, of which:—
- | | |
|------------------------------------|------------------|
| during the first quarter | 250,000 quintals |
| » » second » | 150,000 » |
| » » third » | 150,000 » |
| » » fourth » | 250,000 » |

- C. 7 (9-3-33) Import of maize and of its derivatives contingent during the first quarter 1933:—
- | | |
|------------------------------|--------------------|
| maize in the grain | 1,630,000 quintals |
| maize broken, etc. | 80 » |
| maize meal. | 13,500 » |

Quantities already imported, as well as the quota of small-grained, so-called Bessarabian maize, to be deducted.

- G 8 (1-4-33) Quota for second quarter of 1933:—
- | | |
|------------------------------|------------------|
| maize in the grain | 900,000 quintals |
| maize broken, etc.. | 40 » |
| maize meal | 7,000 » |

The quota of small-grained so-called Bessarabian maize is included in the total.

- A. 3 (10-4-33) 40 % of the import duties to be levied on a quota of 400,000 quintals of Hungarian maize destined for stockfeeding to be used for the service of Hungarian debts in France.
- C. 9 (29-4-33) The importation into France, with the benefit of a reduction in duty of 35 p. c., of maize intended for use by the starch and glucose industries can only be allowed for each factory within the limits of an annual quota equal to the average of the quantities of maize worked up and subject to the special manufacturing tax, during the seasons (1 October-30 September) 1930-31 and 1931-32.
- C. 10 (1-6-33) Quota to be imported into France or into Algeria during the period from 1-6-33 to 31-5-34 of maize originating in or consigned from the French zone of Morocco: 125,000 quintals.

- C. 11 (1-7-33) Quota for third quarter:
- | | |
|----------------------------|------------------|
| Maize in grain | 600,000 quintals |
| Maize broken, etc. | 20 » |
| Maize meal | 4,000 » |

The quota of small-grain so-called Bessarabian maize is included in this total.

(to be continued).

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No. 8

MARKETING OF AGRICULTURAL PRODUCTS

Development in Europe of Tariffs and Restrictions on International Trade in Cereals. (*Concluded*).

II. — GREAT BRITAIN AND NORTHERN IRELAND.

From the time when the Corn Laws were abolished in 1847 and especially after the customs duty of 1s. per quarter was repealed (1869), the import of cereals into the United Kingdom was absolutely free. This demonstrates very well the strength of the Free Trade tradition in this country. When, however, the recent measures of protection were introduced, two principal reasons might be found for the change in the traditional policy: on the one hand the period of the war had given many people the impression of a lack of equilibrium between industry and agriculture, an impression which was strengthened when the export of industrial products decreased, especially with the onset of the crisis, while at the same time the quantities of agricultural products to be imported did not diminish; on the other hand it was hoped that by giving advantages to shipments originating in and consigned from countries within the British Empire more goods might be exported to these countries.

This latter consideration is at the basis of the general tariff of 10 % ad valorem on almost all imported products originating in or consigned from countries outside the British Empire. As regards cereals the Import Duties Act of 1932, which came into force on 1 March 1932, levied duties of 10 % ad valorem on rye, barley, oats and cereal flours, while the Ottawa Agreements Act added others: for wheat 2s. per quarter of 480 lb. and for white flat maize 10 % ad valorem, in each case with exemption for shipments originating in and consigned from the British Empire. These latter duties are the results of the Imperial Economic Conference at Ottawa in the summer of 1932 and are fixed for wheat in the agreements with Canada, Australia and India and for white flat maize in the agreements with the Union of South Africa and Southern Rhodesia. It may be added that Canadian wheat shipped from a United States port, even if provided with a certificate of Canadian origin, does not enjoy this preference.

Assistance to agriculturists is also given in the Wheat Act, which came into force on 12 March 1932. The regulations adopted are somewhat complicated. A *standard price* of 45s. per quarter of wheat is established. The growers will sell their wheat on the free market and the average price paid throughout the year for milling wheat produced in the country will be calculated. The grower will have the right to receive at the end of the year what is called a *de-*

deficiency payment, i. e., a sum equal to the difference between the *standard price* and the average price for each quarter of milling wheat sold by him. In this way, with the *deficiency payment*, the average price received by the wheat producer will be 45s, but the prices will not be uniform, since those received by each grower will vary according to the price which he has received on the free market.

In order to provide the funds for the deficiency the millers and the importers of flour will be obliged to make a certain quota payment on all flour milled (whether produced from wheat grown in the country or from that imported) and on all flour imported; but the millers whose production consists exclusively of wheat flour employed without further manipulation for the feeding of livestock, including poultry, may obtain certificates which exempt them from these contributions.

The quota payment to be made for flour was fixed at 2.25 s. per 280 lb. from 19 June till 29 October 1932 and at 2.75s. from 30 October until 31 July 1933 (1).

In consequence of the imprisonment of two British subjects in the U. S. S. R., the British Government forbade, as from 22 April 1933 without special licence from the Board of Trade the import of numerous products originating in or coming from the U. S. S. R. These products included wheat, barley, oats and maize in grain. This provision has however been revoked as from 1 July when the two Governments were able to reach an agreement.

12. — GREECE.

In Greece the production of wheat, by far the most important cereal, covers only some 40 % of the internal consumption. For breadmaking a preference is shown for imported varieties. In order to make the customs duties effective it was necessary so to organise the internal market as to compel the millers to employ home-grown wheat.

Law No. 3598 of 10 July 1928, several times subsequently changed, established a special organisation for this purpose; under the control of a specially appointed committee, certain quantities of wheat and home-grown barley are purchased each year immediately after the harvest in order to prevent a glut on the market. This wheat is marketed in two ways: by compelling the millers to mix with imported wheat a certain percentage of home-grown wheat and by compelling importers to purchase, during the period October-April, along with imported wheat a certain percentage of home-grown wheat, and, in the period from May to September, to pay, besides import duties, a supplementary tax if there are no purchases of native wheat. For the period from 1 November 1931 to 31 March 1932 the percentage of wheat was fixed at 15 % and its price in paper drachmai 515 per quintal. For imports by Customs Offices of secondary importance the organisation does not arrange for the purchase of home-grown wheat but obliges a supplementary tax to be paid throughout the year. This tax for the above period amounted to 17.48 paper drachmai.

As regards internal regulation the decrees concerning breadmaking are also important as they lay down that only two qualities of wheat flour for this purpose,

(1) From 1 August fixed at 3s. 6d.

with extraction percentages of 78 and 92 respectively, may be manufactured. To reduce the imports of wheat the mixture of flour for bread with 20 % barley flour was authorized.

In addition to the above provisions and the import duties, other measures may be enumerated, which, while based in part on the regulation of the exchange, have certain more general aspects.

The principal of these measures came into force on 27 June 1932 and stipulated that the import of products consigned from other countries which cannot furnish exchange or, if they can, only in limited quantities, for the purchase of Greek products, should be reduced to quantities of a value corresponding to the value of Greek products exported to the same countries.

Apart from these limitations, imports depend only on the payment of duties levied at the time. To meet the needs of the livestock industry it was decided that after 12 December 1931 a quota of 100,000 quintals of yellow maize might be imported free of duty, while, owing to the critical position of certain regions, the import of 50,000 quintals of barley and of 750,000 quintals of maize was permitted between 30 January and 31 May 1933, on payment of the reduced duty of 1.50 metal drachmai per quintal.

The import duties are expressed in metal drachmai and a coefficient of majoration is applied in order to make payment in paper drachmai, that is, drachmai of legal currency. While, consequent on a regulation which came into force in 1926, this coefficient must be fixed from time to time, it was stabilised as from 28 January 1929 at 15, a figure which was changed only recently. When on 20 May 1932 there was a further inflation, this coefficient was increased only for products of secondary importance; and on 2 December it was raised to 20 for flour.

In addition to the customs duties there is also an octroi tax of 25 % of the principal duty, a tax for the service of the "forced loan", amounting to three-tenths of the two others together, and some minor charges. The total amounts to 75 % of the import duties.

The duties and surcharges, expressed in metal drachmai per quintal, are as follows :—

	Duty	Surtax
Wheat and white maize	6.00	4.50
Rye, barley, oats and yellow maize	5.00	3.75
Maize, pignoletto	3.00	2.25
Wheat flour	10.70	8.02
Other flours (in large parcels)	10.00	7.50

13. — HUNGARY.

Hungary is an exporter of cereals. The importance of these crops may be seen from the areas harvested on the average during the quinquennial period 1923-27.

Wheat	1,460,000 ha.
Rye	669,000 "
Barley	421,000 "
Oats	287,000 "
Maize	1,037,000 "

a total of 3,874,000 ha., 70 % of the arable land and almost 42 % of the total area of the country.

It should be noted that in the old Austro-Hungarian Empire the regions which form the present Kingdom of Hungary and the adjacent territories were the principal centres of cultivation of cereals, for which very large markets were found in the other parts of the Empire, all the more so as there was a tariff wall. Thanks to this situation the milling industry shewed great development especially in the environs of the capital. After the war, however, owing to the fact that the new frontiers formed obstacles to the free passage of commodities, and the other Succession States were endeavouring to develop all essential industries in their own territories, the mills did not find the same outlet as formerly. It is especially due to this fact that Hungary in its commercial treaties with other powers has always sought to obtain favourable conditions for the import of its flour, having at one time had a well-established advantage as regards this product in comparison with the other cereal-exporting states of South-eastern Europe.

The production and export surplus during the period mentioned have been as follows (in thousand quintals):—

	Production	Export surplus
Wheat	18,659	4,940
Rye	7,096	1,618
Barley	5,078	321
Oats	3,368	319
Maize.	18,160	717

The wheat export consists to a great extent of flour (export surpluses: wheat in the grain: 2,600,000 quintals; wheat flour: 1,755,000 quintals; in the total flour reduced to grain), but gradually the neighbouring importing countries succeeded in extending their own milling industry and thereby considerably diminished the export of flour. The measures taken in the two special markets for Hungarian wheat flour – Austria and, for smaller quantities, Czechoslovakia – had a very unfavourable effect in the commercial year 1930-31 and still more in the following years. In Austria there was an increase (from July 1931) in the duty on flour, which subsequently was no longer proportioned to the increase in the duty on whole cereals (see Austria). In Czechoslovakia the termination of the commercial treaty on 15 December 1930 and limitation of flour imports in 1931, enforced still more rigorously as from August 1932 (see Czechoslovakia p. 322), had an unfavourable result on Hungarian exports. It is evident that under such conditions measures of tariff protection or quota-fixing cannot have more than a very small influence as regards Hungary: import duties may be of use only as regards keeping foreign cereals outside the national markets at times when by scarcity or through internal measures

prices are higher than in the surrounding countries. They were as follows on 1 January 1931:

Wheat	gold cr.	6.30	per quintal
Rye	"	5.80	"
Barley	"	5 00	"
Oats	"	4.80	"
Maize	"	2.00	"
Flour, etc. of wheat	"	13 00	"
Flour, meal, etc. of rye and barley	"	12.00	"
Meal, etc. of oats	"	10.00	"
Meal, etc. of maize	"	8.00	"

All the duties have remained the same since 1925 except that on barley, which, owing to Czechoslovakian imports, was increased in 1927 (original duty gold cr. 2.80). The duty on oat flour was fixed from 8 August 1927 to 15 December 1930 in the commercial treaty with Czechoslovakia, terminated on that date and was not renewed. Since the beginning of 1931 the duties have not been changed.

It should be added that from 20 February 1931 seed cereals may be imported free on production of a special permit.

In addition to the customs duty there is also a turnover tax, which, until 14 September 1931, generally amounted to 2% *ad valorem* and from that date to 3%.

In seeking for other measures to assist cereal growers, the Hungarian Government in the first place founded in 1929 the Hungarian Institute for Agricultural Export, which watches developments in the principal foreign markets.

As the prices of wheat on the regulating markets fell very low, Law XXII of 15 July 1930 brought into force the so-called "Cereal Coupons System", of which the fundamental principle is that the buyer of cereals is obliged to give to the producer for each quintal of wheat, rye and meslin a coupon, the so-called *boletta*, valued at 3 pengös, which may be employed up to its total value in the payment of taxes and other public burdens. In the case of sales of commodities abroad the value of the *boletta* is reimbursed to the exporter by the Exchequer. In this way the Hungarian consumer pays the increase in favour of the producer.

The same law further stipulated that "the price of milling to be levied by the millers, the bolting percentage, the price of the milling derivatives and the price of the bread", as well as "the proportion and the quality of rye for mixing with wheat in the bread" may be fixed by decree.

The value of the *boletta* utilised for the partial payment of wheat, rye and meslin has been increased to 10.00 pengös, as from 11 July 1931. For the commercial season from 1 July 1932 to 30 June 1933 the *boletta* system is modified, leaving, however, the possibility to the grower of obtaining a higher price than the corresponding price abroad.

14. — IRISH FREE STATE.

In this country, during the long period when it formed part of the United Kingdom, the Free Trade system held good, but the Government of the Free State has gradually changed the orientation of its policy so that there are now certain

duties on cereals to be enumerated which were in force up to 24 May 1933. In general there exists a double régime: a general duty and a duty on shipments originating in and consigned from the British Empire (preferential duty). The development of these duties has been as follows (in every case in shillings and pence):—

	General duty	Preferential duty
Wheat	exempt	exempt
Rye	»	»
Barley (as from 28-9-32; duty per 112 lb.).	7/6	5/-
Oats (duty per 112 lb. as from 24-10-31) . .	2/6	1/8
" " " " " " 28-9-32 . .	7/6	5/-
" " " " " " 7-3-33 . .	22/6	15/-
Maize (as from 28-9-32; duty per 112 lb.) . . .	7/6	5/-
Wheat flour (as from 7-7-32; duty per 280 lb.).	5/-	5/-
Rye flour and barley flour	exempt	exempt
Malted barley (as from 28-9-32; duty per 112 lb.	10/6	7/-
Oat meal (duty per 112 lb.; as from 1926) . .	2/6	2/6
" " " " " " 24-10-31 .	6/-	4/-
" " " " " " 28-9-32 .	15/-	10/-
Maize meal and broken maize (duty per 112 lb.;		
as from 30-4-32)	1/-	1/-
Maize meal and broken maize (duty per 112 lb.;		
as from 28-9-32)	9/-	6/-

It should be added that from 27 September 1932 the import of maize was permitted only under special licence and that exemption from the customs duty on wheat flour may be given when the necessities of the country require it.

On the 24 May 1933 an Act "to make provision for the control and regulation of the business of milling wheat and other cereals", as well as "to promote and encourage the growing of certain cereals" came into force under the short title of the Agricultural Produce (Cereals) Act, 1933. The act limits the imports of wheat flour and meal in relation to the necessities of the milling industry and that of whole cereals and other meals in regard to the conditions in agriculture. At the same time the duties on cereals, flours and meals are abrogated.

Existing flour mills are not in a position to cater for the full requirements of the country. Pending the erection of new mills the Minister for Industry and Commerce will grant licences from time to time for the importation of flour in sufficient quantities to meet the demands of the country.

That part of the Act which directly regulates the milling industry came into force a week later. It provides that no person may carry on by way of trade or for the purposes of gain the business of milling wheat at any mill unless he is the holder of a licence which covers the milling of all wheat into either flour or meal. With each such licence granted the Minister prescribes the quantity of wheat which may be milled during the quota year (1 August of any year to 31 July of the following year) and he prescribes a preliminary quota

for the period between the date of the licence and 31 July next following, *e. g.*, from 31 May, 1933, to 31 July, 1933. It is an contravention for any miller to fail to mill at least 90 % of the quota allotted to his mill and if he mills in excess of the quota he must pay to the Minister for Industry and Commerce the sum of 3s. in respect of every 400 lb. of wheat over-milled.

15. — ITALY.

Introduction. — In Italy by far the most important agricultural product is wheat, which covers no less than 35 %–38 %, according to the year, of the arable land. It is not, therefore, surprising that the Fascist Government in assisting agriculture has concentrated on this crop, particularly with a view to influencing favourably the balance of trade. The importance of this cereal may also be seen by the following comparison: of all carbohydrate foods wheat supplies no less than 72 % against 18 % for maize and 10 % for potatoes, rice, rye and beans together. The measures to favour cultivation of wheat are known as the Wheat Campaign (« battaglia del grano »).

The customs duty on wheat, repealed in 1921, was again brought into force in 1925. It then amounted to 7.50 gold liras. The duty had generally only a small effect in the first part of the commercial season (July–December), which was explained by the fact that many agriculturists found themselves obliged to sell their crop as soon as possible in order to obtain cash. Immediately that the monetary situation of the country (after the inflation and the partial deflation) allowed, the Government began to assist agriculture by means of other measures, such as agricultural credits on cereals stored in silos, also constructed by means of Government credits.

Nevertheless it was necessary to increase the duties twice during this period, especially as deflation had had the effect of reducing prices as expressed in actual liras, while debts, incurred at a less favourable moment, continued to be burdensome. The first change occurred on 13 September 1928, when the duty was raised to 11.00 gold liras, the second on 24 May 1929, when it was raised to 14.00 gold liras. This latter measure was taken under the influence of the very large harvest which was then expected and when, with 70,795,000 quintals, it was almost 24 % above the average for the period 1923–27; the decline in price at the time of the harvest was very heavy. After the quantities immediately put on sale were absorbed, prices began to rise, while on the large free importing markets they fell. To avoid the spread of this movement to the internal market, the duty was increased again and from 5 June 1930 amounted to 16.50 gold liras.

The duty on wheat flour was in 1925 11.50 gold liras, that is, 53 $\frac{1}{3}$ % more than that on whole wheat. This proportion was later fixed in several commercial treaties as the maximum percentage. On 13 September 1928 the duty on flour was raised to 16.75 gold liras; on 24 May 1929 to 20.30 gold liras; on 5 June 1930 to 23.70 gold lire. When it is calculated that at least 135 kg. of wheat are required for the manufacture of 100 kg. of flour, the duty on the latter commodity ought to reach, without taking into account the costs of milling,

1.35 × 16.50 gold liras, equivalent to 22.27 1/2 gold liras, so that at this time there was only a very small compensation for the cost of production of flour. It may be indicated here that in 1931 this difference was increased (see A 1 wheat).

The duty on white maize flour underwent the same increases, and that on semolina was changed proportionally, although it was always higher (in 1930: 29.40 gold liras). The duty on whole white maize was the same as that on wheat in the grain.

As may be seen from the table below, the maize crop is also very important. In the period 1923-27 there was harvested on the average:—

Wheat	4,771,000 ha.
Rye	125,000 »
Barley	234,000 »
Oats	483,000 »
Maize	1,535,000 »

As, however, the duties on cereals other than wheat were generally fixed in the commercial treaties, it was not possible to bring about an increase, which would, in any case, have had relatively little effect on the position of the agricultural holding, as the great mass of the products do not leave the farm on which they are grown. In this way, throughout the period under consideration, before 1931, the duties were as follows: rye 4.50 gold liras per quintal, barley 4.00 gold liras, oats 4.00 gold liras (from 5 June 1930 even 3.25 gold liras, according to the treaty with Rumania), maize other than white 1.15 gold liras.

As exceptions from these duties it may be noted that white maize for manufacture of starch is, under special conditions, admitted free of duty. An annual quota of 100,000 quintals of wheat and of 160,000 quintals of barley consigned from Italian colonies is also admitted exempt.

It may be added that by a measure with effect as from 1 March 1931, the customs duties, which were always expressed in gold liras, have been converted into terms of legal currency by applying the factor of 3.67. A slight rounding off of the figures has at the same time been made but the total of the duties is not affected. The amounts of the duties expressed in the legal currency are as follows:—

Wheat and white maize	L. 60.60
Wheat flour and white maize meal	» 87.00
Rye	» 16.50
Rye flour	» 23.90
Barley	» 14.70
Oats	» 11.95
Barley flour and oat flour	» 22.00
Maize, other than white	» 4.20
Meal of maize other than white	» 11.55

In addition to the import duty there is also a turnover tax (*tassa di scambio*), from which, however, are exempt wheat and its milling derivatives, as well as

barley and maize and their milling derivatives, the latter so far as they are not destined for industrial uses. The tax amounts to 15 % *ad valorem*.

The more important changes in the regulations after 1 January 1931 (as far as they have come to the knowledge of the Institute) are reproduced below.

Wheat and its derivatives.

- E. 1 (17-6-31) For mills established on the customs territory of the Kingdom and milling wheat of foreign origin for the production of flour and semolina, it is obligatory to employ in such production a certain percentage of home-grown wheat (reg. of 10-6-31).
- E. 2 (2-7-31) Minimum percentage of home-grown wheat for milling: 95 %.
- A. 1 (8-7-31) Import duty: wheat flour (and white maize meal): liras 92.90.
- A. 2 (19-8-31) Import duties: wheat in the grain (and white maize): liras 75.00; wheat flour (and white maize meal): lire 112.35; Wheat semolina: liras 130.10.
- E. 3 (1-11-31) Minimum percentage of home-grown wheat for milling: hard wheat: 75 %; soft wheat: unchanged.
- E. 4 (1-1-32) Minimum percentage of home-grown wheat for milling: hard wheat: 50 %; soft wheat: unchanged.
- E. 5 (1-2-32) Minimum percentage of home-grown wheat for milling: hard wheat: 20 %; soft wheat: 70 %.
- E. 6 (1-3-32) Minimum percentage of home-grown wheat for milling: hard wheat: 20 %; soft wheat: Northern and Central Italy, excluding Latium: 60 %; Latium, Southern Italy and the Islands: 40 %.
- E. 7 (21-3-32) Minimum percentage of home-grown wheat for milling: hard wheat: 20 %; soft wheat: Northern and Central Italy, excluding Latium: 50 %; Latium, Southern Italy and the Islands: 30 %.
- E. 8 (26-4-32) Minimum percentage of home-grown wheat for milling: hard wheat: Northern and Central Italy, excluding Latium: 10 %; Latium, Southern Italy and the Islands: 15 %; soft wheat: Northern and Central Italy excluding Latium: 40 %; Latium, Southern Italy and the Islands: 15 %.
- E. 9 (23-5-32) Minimum percentage of home-grown wheat for milling: hard wheat: Northern and Central Italy, excluding Latium: 5 %; Latium, Southern Italy and Sardinia: 10 %; Sicily: 15 %; soft wheat: Northern and Central Italy, excluding Latium: 25 %; Latium, Southern Italy and the Islands: 5 %.
- E. 10 (27-6-32) Flours which enter into trade should correspond to specially fixed criteria, not be mixed with any other flour or meal (unless clearly indicated) nor be bleached or colored physically in any other way than by extraction) or chemically (Reg. of 17-3-32).

- E. 11 (27-6-33) Minimum percentage of home-grown wheat for milling: hard wheat: Northern and Central Italy, excluding Latium: 70 %; Latium, Southern Italy and the Islands: 95 %; soft wheat: mainland Italy and Sardinia: 95 %; Sicily: 70 %.
- E. 12 (1-1-33) Minimum percentage of home-grown wheat for milling: hard wheat: Northern and Central Italy, excluding Latium: 60 %; Latium, Southern Italy: 90 %; the Islands: 95 %; soft wheat: Northern and Central Italy, excluding Latium: 95 %; Latium and Southern Italy: 80 %; the Islands: 60 %.
- E. 13 (16-3-33) Minimum percentage of home-grown wheat for milling: hard wheat: 95 %; soft wheat: unchanged.
- E. 14 (1-4-33) Minimum percentage of home-grown wheat for milling: hard wheat: unchanged; soft wheat: Northern and Central Italy, including Latium: 95 %; Southern Italy: 90 %; Islands: 60 %.
- E. 15 (16-4-33) Minimum percentage of home-grown wheat for milling: hard wheat: unchanged; soft wheat: 95 %.

General note concerning wheat. — Although prices on the open markets have risen recently, in Italy a marked diminution is to be noted, attributable to an increased consumption of other products of which last year's harvest was considerably in excess of average, such as potatoes, maize, chestnuts and leguminous crops. While the difference between the prices of soft native wheat "buono mercantile" and No. 2 Manitoba on the Milan market during the first months of 1933 was only liras 8 to 10 in favour of imported wheat, this difference rose in April to liras 19.20, in May to liras 20.60 and in June to as much as liras 34.85 ("buono mercantile": liras 89.50; No. 2 Manitoba liras 124.35). In order to meet this situation, which is unlikely to recur judging by the estimates for the next harvest which in all probability will not be so good as the record wheat harvest of 1932, the Government has promised to maintain the customs duties on wheat and the proportions of native wheats for grinding at a very high level (from 17 July the minimum percentage of home-grown wheat for milling will be 90 %, both for hard and for soft wheat) and to make strong efforts to secure the heavy supplies which are available each year immediately after harvest, by taking steps to give an advance of liras 90.00 per quintal for a quality only slightly superior to "buono mercantile" to farmers who are prepared to store in special granaries.

Rye and its derivatives.

- A. 1 (9-7-31) Import duties:
- | | |
|----------------------------|------------|
| Rye in the grain | lire 36,50 |
| Rye flour | " 50.90 |
- B. 1 (15-7-31) Turnover tax increased to 2.5 % *ad valorem*.
- B. 2 (1-4-32) Rye and milling products, even when destined for other uses than breadmaking: exempt from turnover tax.

Barley and its derivatives.

- G. 1 (24-4-31) Annual quota of 2,000 quintals of two rowed barley, for seed, under special conditions: exempt.
- B. 1 (15-7-31) See B. 1 rye (the measure refers only to products for industrial purposes).
- D. 1 Malt: imports prohibited except in relation with certain commercial treaties.
- B. 2 (24-9-32) Products of recognised French origin, so far as they are not exempt from the turnover tax (see also B. 1), charged with a supplementary *ad valorem* tax at the following rate:—
- | | |
|---|-------|
| Barley for industrial uses | 2.5 % |
| Barley meal and malted barley for industrial uses | 5.0 % |
| Oat meal | 5.0 % |
| Maize for industrial uses | 2.5 % |
| Maize meal for industrial uses | 5.0 % |

Oats and oat derivatives.

- B. 1 (15-7-31) See B. 1 rye.
- A. 1 (1-9-32) Oats: conventional duties fixed in the commercial treaties with Hungary and Rumania abrogated. New conventional duty (treaty with Rumania), liras 16.00; general duty, liras 24.00 (duty on meal unmodified).
- B. 2 (24-9-32) See B. 2 barley.

Maize and its derivatives.

- A. 1 (8-7-31) See A. 1 wheat.
- B. 1 (15-7-31) See B. 1 rye (the measure refers only to products for industrial purposes).
- A. 2 (19-8-31) See A. 2 wheat.
- A. 3 (2-9-31) Import duty: maize other than white, liras 30.00; meal from this maize, liras 39.80.
- B. 2 (24-9-32) See B. 2 barley.
- C. 1 (4-7-32) Maize other than white: import of an annual quota of 40,000 quintals originating in the Italian Colonies permitted at reduced duty of liras 10.00.

General note with reference to all products. — The measures adopted by the Italian Government for the purpose of assisting Italian agriculture to escape from present conditions, particularly difficult in certain districts of Northern Italy, have been many but the general principles involved are as follows: (1) an equitable customs protection for certain products of Italian agriculture but without recourse to any quota system; (2) special measures in favour of certain provinces particularly affected by the crisis, consisting in contributions by the State towards the payment of the interest on heavy debt charges; (3) an

annual contribution of six million liras over a period of 30 years in aid of the Association of Agrarian Consortiums, which is responsible for providing farmers with machinery, fertilisers and seeds; (4) relief for financial losses incurred by deserving farmers, amounting annually to 46 million liras for a period of 25 years. The total charge on the Italian State Budget in respect of these various provisions (though spread over a long period) amounts to 1740 million liras, which capitalised at present rates represents approximately 900 million liras.

16. — LATVIA.

Latvia is in the same position as was described in the case of Estonia. In order to favour live stock production, the duties previous to 1931 were very low except in the case of wheat, the cultivation of which it was desired to encourage for the same reasons as in the other Baltic countries.

The law of 8 August 1930, however, already inaugurated measures of control which are of very great importance. The proportion of home-grown wheat and rye to be employed in flour for breadmaking may be fixed by the Government. Loans on cereal stocks, so far as these exceed the quantities to be consumed on the holding or in the farmer's household, may be made. The prices for these quantities are fixed in relation to the costs of production and the millers must pay the same price for imported cereals. The import of wheat, rye and their products is permitted only on production of a certificate showing the purchase of certain quantities of the same product of home-grown origin. For the greater part of the commercial year 1930-31 the proportions were as follows:—

1 quintal imported against	home-grown quintals
Wheat	wheat 1
Wheat flour	» 1.5
Rye	rye 4
Rye flour	» 5

The proportions were changed in November 1931 for the commercial year 1931-32 as follows:—

1 quintal imported against	home grown quintals
Wheat	wheat 2 and barley $\frac{1}{3}$
Wheat flour	» 3 and barley 1
Rye	rye 6
Rye flour	» 8

In addition, already in 1931, the import quotas of barley and of oats were fixed at 5,000 quintals per annum for each cereal, on 11 February 1932 that of wheat at 250,000 quintals and on 18 February 1932 that of rye, maize and cereal flours at 75 % of the imports during the year 1931.

This regulation was not, however, sufficient, in part owing to the fact that the Government carried too great a burden of cereal stocks in proportion to the financial resources of the country. For this reason, from 28 June 1932, the

Monopoly of Bread Cereals, administered by the Cereal Office of the Ministry of Agriculture, controls and regulates the whole trade, buying cereals and their products abroad only when home production does not suffice.

The position of the duties, after the increases of 8 August 1930, is given in the following summary, in each case per quintal:—

Wheat	lats.	7.00
Rye	'	exempt
Barley	'	3 00
Oats.	»	3 00
Maize	'	exempt
Unbolted wheat flour	'	10 00
Bolted wheat flour	'	25.00
Coarse-milled rye flour	»	5.00
Rye flour bolted at least in part.	»	12.00

The following are the few subsequent changes: on 27 July 1931 the duties on barley and oats were increased, both to lats 12.00; on 12 July 1932 that on oats underwent a further increase to lats 24.00, while a duty of lats 1.00 was placed on maize.

It should be pointed out that only the minimum duties are reproduced but the maximum duties, which are considerably higher, are applied to shipments originating in or consigned from countries with which Latvia has not a commercial treaty (e. g., Yugoslavia, Argentina and Australia).

Even these minimum duties are not however in practice often levied, since two neighbouring countries exporting wheat (which is the most important cereal imported) have treaties with Latvia containing preferential duties. As regards the U. S. S. R., which obtains a reduction of 20 % on the minimum duties on wheat, this regulation has been in force since 5 November 1927 (Russian preferential clause). The treaty with Lithuania, which came into force on 1 January 1931, provided for preferential treatment for, amongst other commodities, wheat (reduction of 75 % on the minimum duty) and rye (fixed exemption, shipments of other origin also remaining free until Latvia imposes an autonomous duty). It may be useful to add that preferential treaties also exist with Estonia and Finland but do not refer to cereals (Baltic preferential clause).

The import duty on wheat (like the duties on sugar and several other industrial and agricultural commodities), may, according to the law of 20 December 1929, be paid with import certificates for certain other agricultural products; the law enumerates barley, oats, barley flour and cereal groats in general, but the law of 23 December 1930 abolishes these regulations so that thenceforward these certificates have been supplied only for the export of eggs and of clover and timothy seed.

17. — LITHUANIA.

In contrast with the other Baltic States, Lithuania is an exporter of cereals, and cereal production plays a very important part in the national agricultural economy. In 1930 cereals occupied 64 % of the cultivable land,

excluding fallows. Wheat and rye preponderate but for barley and oats also an export surplus has been recorded, at least in recent years. It is evident, therefore, that the customs duties are of practical value only in the event of a temporary shortage and for the stricter regulation of the home market. For the latter purpose they are fixed at a very high level.

Wheat	30.00	lits	per	quintal
Rye, barley, oats, maize	20.00	»	»	»
Wheat flour	90.00	»	»	»
Flour of other cereals	55.00	»	»	»

The last duty was fixed at this figure on 29 March 1931 and was previously 45.00 lits. Shipments of cereals in the grain for seeding purposes, destined for agricultural organisations, may, on special authorisation, be exempt from duty.

In order to assist farmers the Government has organised the purchase and storing of cereals under a large cooperative organisation.

18. — NORWAY.

In Norway import requirements for all cereals are large because home production, due principally to climatic conditions, is very limited. In order to assist farmers and to guarantee them a remunerative price, the Government has organised trade in the principal cereals and their flours under a form of Monopoly (Statens Kornforretning). Cereal production is, however, of limited importance; in 1930, for example, cereals accounted for only 23 % of the area of arable land.

The Monopoly purchases the entire quantity of home-grown cereals offered for human consumption (in Norway barley products are also largely consumed) and pays prices in accordance with the average prices ruling on the principal free markets.

The price is generally 4.00 crowns above these free prices for wheat, rye, barley and oats. For quantities consumed on the farm compensation is also paid amounting to 4.00 crowns for wheat, rye, and barley and 3.00 crowns for oats, on condition that these cereals are ground in specially authorised mills.

19. — THE NETHERLANDS.

In the Netherlands agriculture as distinct from horticulture is directed principally toward the transformation of the products of the soil, whether of domestic origin or imported, into meat, dairy products and eggs, and consequently the bulk of the cereals never leaves the farms on which it has been produced. This is particularly the case for the most important cereal, rye, which, according to recent estimates, is consumed to the extent of 90 % on the farm. The other cereals were during the five-year period 1923-27 only of secondary importance as is indicated by the average areas harvested:—

Wheat	55,700	ha.
Rye	200,700	»
Barley	26,500	»
Oats	151,500	»

totalling 434,400 ha., 46 % of the arable land but only 17 % of the total cultivated area, of which permanent meadows alone accounted for at least 1,260,000 ha. in the same period.

A still clearer idea is obtained from an examination of the balance of production and import surplus on the average for the five years indicated above (expressed in thousands of quintals)

	Production	Import surplus
Wheat	1,522	7,505
Rye	3,731	1,155
Barley	740	2,625
Oats	3,068	901
Maize	—	9,599

According to these figures, the situation is comparable with that existing in Belgium and Denmark, although in the Netherlands, the inadequacy of home production is still more conspicuous. It should, moreover, be stated that the population, which consumes ryebread generally only to a limited extent, prefers bread made from imported bolted wheat flour. Home-grown wheat is, on the contrary, principally fed to poultry. From the above it is evident that the principal effect of a customs duty on cereals would be an increase in the cost of livestock production.

Naturally under these conditions, there are no customs duties on either cereals or flour, which are considered as raw or semi-manufactured materials. Consequently, and also as a result of the free trade tradition in the Netherlands since the fifties of last century, they are not subject to fiscal duties, which, for many other products, were at first 5 % and, from 1925 onward, 8 % *ad valorem*, not taking into consideration provisional increases for fiscal purposes.

After 1930 this policy remained unchanged in regard to import duties. Note should here be made of the protection given to wheat production by the law of 21 February 1931. This law stipulates that "it may be prohibited or permitted only under special circumstances to transport, hold or deliver wheat flour and meal, the composition of which does not correspond to that prescribed". One of these stipulations to be borne in mind is that, of the total quantity of wheat flour and meal, the maximum proportion of home-grown wheat flour and meal to be required is 25 %.

At first (from 4 July 1931) the minimum percentage of home-grown wheat to be utilised in flour for breadmaking was fixed at 20 % but when, in the following October, the new crop had ripened, this percentage was increased to 22½. For home-grown wheat, the Central Organisation for the sale of wheat pays a remunerative price while, to cover purchasing and other expenses, it receives on the other hand from the importer a certain sum per quintal of imported wheat, except for wheat recognised to be unsuitable for breadmaking. As regards imports of flour, a Central Organisation has been set up for the regulation of the import trade in flour and wheat. Owing to the fact that the Government did not propose this measure until the beginning of 1931, farmers did not take it into account when sowing their winter crops and were

only able to increase the spring wheat sowings so as to reach a total of 77,800 ha. In 1932 the area harvested was however no less than 120,100 ha. The minimum percentage was then fixed, from 1 August onward, at 25 % but did not suffice to absorb the whole of the crop. The yield was also, thanks to fine weather, very high. The Central Organisation for the marketing of wheat sold on the open market the surpluses bought by it from the growers, while at the same time, in order to prevent too great a decline in the average price, raising the price of the home-grown wheat to be used in breadmaking mixtures.

The regulations regarding wheat were modified by a further law of 9 February 1933, which permitted the use of up to 40 % home-grown wheat in flour. On 13 February, that is, on the day following the coming into force of this modification, the compulsory percentage was increased from 25 % to 35 %.

As a result of this legislation, the price of bread has risen though only to a small extent. In Belgium, however, where baking costs and also the price of the wheat mixture used are lower, it has been found possible to produce bread at so cheap a rate that it is worth while to import it into the Netherlands, the result being that this importation threatened to jeopardize the action that was being taken to encourage wheat growing. For this reason the importation of wheaten bread and of dough for the manufacture of this bread was rationed as from 1 November 1932 until 31 October 1933 to 100 % of the average quantities imported during a period of 12 months between 1 November 1930 and 1 November 1932 from any one country.

Finally reference should be made to the assistance to be given to growers of rye in so far as they generally sell a large part of their crop (holdings in the fen colonies and on lands reclaimed in 1905 and after). With regard to this assistance, a decree of 5 May 1933 restricts the import of rye flour and meal during the period from 1 April 1933 to 31 March 1934 to 100 % of the average quantities imported during 1931 and 1932. Another reason for the decree was that the bakers started mixing a large percentage of rye flour with the mixed wheaten flour for bread making.

20. — POLAND.

Poland is mainly an exporting country as regards cereals but, especially in the period preceding the crisis, scarcity was experienced from time to time. During this period it was impossible to regulate the market satisfactorily, owing to the fact that agriculturists found themselves under the necessity of selling immediately after the harvest in order to obtain cash, the Government not being in a position to grant large loans. In this way the necessity was felt from time to time of raising the export duties. As recent examples of these duties on cereals may be indicated those on wheat, amounting to zł. 20.00 per quintal (for the period 1 October 1928 to 31 July 1929), on rye and rye flour, to zł. 15.00 (for the period 20 January 1927 to 31 July 1929) and finally on oats, to zł. 10.00 (for the period 12 October 1928 to 30 June 1929).

The importance of the various crops may be seen from the short table following, in which are given the areas harvested, the production and the export surplus (+) or import surplus (—), the first in thousands of hectares, the others

in thousands of quintals, in every case for the average of the period 1923-1927 :—

	Area	Production	Import or export surplus
Wheat	1,291	14,688	+ 1,063
Rye	5,578	55,466	— 446
Barley	1,102	12,033	— 921
Oats	1,950	19,852	+ 71
Maize	86	880	— 417

It should be stated here that the production of the more recent years was considerably higher so that there is now a large export surplus of each of these products except maize. In view of these surpluses two measures are of importance; the import duties, which have several times been augmented, and the export bonuses given in the form of drawbacks of import duties on chemical fertilizers, equipment, etc. for use in agriculture, thus increasing the cost of agricultural production. The 1924 tariff exempted whole cereals from duty and in 1925 the import of flour was also free. The changes that have since taken place are given in the short table following, in every case in zloty per quintal. Account should be taken of the inflation of the zloty, which, at first in 1924 was fixed at 19.295 dollar cents but gradually fell until it was established in October 1927 at the rate of 1.719 new zloty to 1 old zloty (1 new zloty = 11.218 dollar cents).

In addition to the import duty a manipulation surtax amounting to 10 % of the duty was levied from 31 July 1926.

These duties are in theory completely prohibitive, but do, however, serve as a method of regulating imports; the Minister of Finance having the power, in case of imports being necessary, to admit them free of duty as regards wheat, rye and horsetooth maize.

Date of change	Wheat	Rye	Barley	Oats	Maize other than horse-tooth	Wheat flour	Rye flour
1-1-26	—	—	—	—	—	15.00	—
15-3-28	—	—	—	—	—	19.50	5.00
30-10-28	—	11.00	—	—	—	—	—
11-12-28	11.00	—	—	—	—	—	—
30-9-29	—	—	—	—	—	—	16.50
26-10-29	—	—	11.00	11.00	6.00	—	—
31-7-30	17.50	—	—	—	—	25.50	—

It will be noted here that the duty on rye was higher than that on flour from 30 October 1928 to 30 September 1929, but it should be remembered that import under Ministerial authorisation was free, which meant a practical prohibition of rye flour of undesired origin (Germany), while in addition from 4 April until 31 July 1929 the import of rye (and of wheat) was prohibited.

The import of flour was later again prohibited except in the case of Yugoslavia, which, in view of the commercial treaty that entered into force on 30 October 1930, has the right to import into Poland 15,000 quintals of wheat flour per annum.

As regards the drawbacks as against export mentioned above, for the period from 16 November 1929 until 15 April 1930 these were given as bonuses and remained in force, following on a new decree, until 31 October 1930 and afterwards following on a further regulation, indefinitely. At the same time the total quantity was to some extent modified, as will be seen from the following summary (in each case in zloty per quintal) :—

	16 2 29 30 7-30	31-7-30 30-10-30	From 1-11-30
Wheat	6.00	6.00	6.00
Rye	6.00	6.00	6.00
Barley	4.00	4.00	4.00
Oats	4.00	4.00	—
Cereal flour wholly bolted, barley groats, malt . . .	9.00	12.00	12.00
Cereal flour not wholly bolted	9.00	12.00	9.00

These drawbacks are given only for shipments accompanied by special certificates, which are released in cases where the import is desirable, this depending also on the quality of the merchandise.

There should also be mentioned the milling law of 7 December 1928, which fixed in general that all flour for breadmaking and other uses must have an extraction percentage of 65 % in the case of wheat and of 70 % in the case of rye. For rye the percentage 70 is to be taken as the minimum, for wheat no other percentage is permitted except for exports.

In the following summary are given the more important measures which have modified the situation as from 1 January 1931, in so far as they have come to the knowledge of the Institute.

Wheat and its derivatives.

A. 1 (6-3-31) Import duties increased :—

wheat	zl. 25.00
wheat flour.	» 37.00
wheat groats	» 36.00

F. 1 (19-3-31) A Government Fund for the purpose of assisting export of agricultural and industrial products of every kind established.

F. 2 (6-5-31) Repayment of customs duties (drawback) paid on import of chemical fertilisers, etc. as against export of cereals: amount changed (reg. of 15-1-31) :

cereal flour wholly bolted	zl. 10.00
cereal flour not wholly bolted	» 8.00
the other bonuses	unchanged

C. 1 (1-1-32) Import of all whole cereals, flour, groats and malt prohibited except with special licence.

B. 1 (14-1-32) Manipulation surtax doubled so that it now amounts to 20 % of the customs duty :

wheat	l.	5.00
rye, barley, oats		3.40
maize		0.60
wheat flour		7.40
wheat groats		7.20
meal of barley, oats or maize		5.00
barley groats		6.40
malt		7.20

Rye and its derivatives.

A. 1 (6-3-31) Import duties increased :

rye	zl.	17.00
rye flour	"	25.00

F. 1 (19-3-31) See F. 1 wheat.

F. 2 (6-5-32) See F. 2 wheat.

C. 1 (1-1-32) See C. 1 wheat.

B. 1 (14-1-32) See B. 1 wheat.

Barley and its derivatives.

A. 1 (6-3-31) Import duties increased :

barley	zl.	17.00
barley meal	"	25.00
barley groats	"	32.00
malt	"	36.00

F. 1 (19-3-31) See F. 1 wheat.

F. 2 (6-5-31) See F. 2 wheat.

C. 1 (1-1-32) See C. 1 wheat.

B. 1 (14-1-32) See B. 1 wheat.

F. 3 (1-12-32) Repayment of customs duty paid on import of chemical fertilizers, etc., as against the export of cereals: amount changed: malt: zl. 3.00.

Oats and oat derivatives.

A. 1 (6-1-31) Import duties increased :

oats	zl.	17.00
oat meal	"	25.00

F. 1 (19-3-31) See F. 1 wheat.

F. 2 (6-5-31) See F. 2 wheat.

C. 1 (1-1-32) See C. 1 wheat.

B. 1 (14-1-32) See B. 1 wheat.

F. 3 (1-1-33) Repayment of customs duty paid on import of chemical fertilizers, etc., on export of oats: zl. 4.00 (drawback fixed until 31-3-33); (prolonged until 31-7-33).

Maize and its derivatives.

- A. 1 (6-3-31) Import duties increased: maize meal: import duty zł 25,00.
 F. 1 (19-3-31) See F. 1 wheat.
 F. 2 (6-5-31) See F. 2 wheat.
 A. 2 (1-1-32) Maize meal: import duty zł 65,00.
 C. 1 (1-1-32) See C. 1 wheat.
 B. 1 (14-1-32) See B. wheat.
 A. 3 (10-10-32) Seed maize: import under special licence exempt from customs duty.

21. — PORTUGAL.

The Portuguese Government completely controls the cereal trade. This control is particularly strict as regards wheat and rye. A law of 1922 practically prohibited the importation of wheat flour save in exceptional cases, whereas that of wheat in the grain is restricted to shipments for certain purposes in quantities fixed annually in relation to requirements to be covered after harvest; 80 % of requirements is generally imported at harvest time to be mixed with home-grown wheat and the remainder when required. Imports are effected by the millers in proportion to their daily capacity. In 1931, the quota was fixed at 450,000 quintals, to be imported during the months of May, June and July, and of this quantity not more than 300,000 quintals was to be imported before the end of June. In 1932 the mills were authorised to import in May and June 350,000 quintals, a quantity which was increased on 6 June by 6,673 quintals, to be imported exclusively by those mills, which in 1931 bought a quantity of home-grown wheat corresponding to their capacity during 300 working days of 8 hours.

By a decree of 3 July 1931 the same restrictions were imposed on rye as on wheat but imports of this product have never been of any importance.

The quantities indicated above refer to the mainland of Portugal but the same measures are in force in the Azores, while in Madeira similar regulations have been in existence since 1900

With respect to the other cereals, omitting oats, Portugal has to import annually fairly considerable quantities. Oats are exported.

The duties (except for wheat) are fixed in gold escudos and paid in escudos of the legal currency by multiplying the gold escudo by 24.45. A legal relation exists between the paper escudo and the British pound sterling. Besides the import duty there is also levied a supplementary tax amounting to 20 % of the former duty as well as a port tax of 1 paper escudo per quintal. In the following table are given the import duties together with the changes made since the beginning of 1930 (in so far as they are known to the Institute) in gold escudos per quintal:—

	Rye, barley, oats	Maize
6- 1-30	1.20	0.70
28-10-30	2.00	1.50
4- 4-31	2.60	2.00
26- 2-32	2.40	1.80

The latter duty no longer refers to rye. The minimum duties are those applied to shipments originating in countries having commercial treaties with Portugal. The general duties, which are more than double, are applied to commodities originating in Rumania, the U. S. S. R., Argentina and Australia.

The recent duties on wheat, expressed in escudos of the legal currency, are as follows :—

Quota, 1931.	80.00	escudos per quintal
1st quota, 1932, imports via Lisbon	72.00	„ „
„ „ „ via Oporto	70.00	„ „
2nd quota, 1932	72.00	„ „

22. — RUMANIA.

Rumania is amongst the most important cereal-exporting countries of Europe. Except in special cases there is no need for imports. At the same time, owing to climatic factors, years of great abundance are followed by others which leave only very small possibilities for export of one or the other cereal. The import duties which came into force on 30 July 1929 served principally to avoid disturbance of the internal markets for wheat, which might have resulted from the supplies at very low prices available from the U. S. S. R. Only on 14 September 1932 were these duties, augmented, as regards wheat, rye and their flour, following on the deficitary crop of that year. The duties, expressed in lei per quintal are as follows :—

	30-7-1929	14-9-1932
Wheat	160	400
Rye	45	400
Barley	40	40
Oats	36	30
Maize	36	36
Flour of wheat and rye	400	600

As regards exports it should be mentioned that, in the corollary to the treaty of commerce with France, that country has agreed to satisfy 10 % of its annual needs of foreign wheat from Rumania. This wheat, to be sold at the world price, will pay in France the minimum duty but a percentage (at maximum 30) will be recovered in order to make Rumanian production more remunerative.

The law of 23 July 1931 on the valorisation of agricultural products, afterwards modified, stipulates that an export bonus of 100 lei per quintal of wheat and 130 lei and later even 160 lei per quintal of wheat flour exported under special conditions will be given.

For the payment of the export bonuses there has been instituted a tax of 1 leu in the form of a stamp to be pasted on each loaf. At the beginning of 1932 the export bonus was abolished leaving in force only the stamp on the bread to be levied up to an amount sufficient to cover the bonuses.

Rumania for the longest time of any of the European countries maintained the system of export duties which are a very simple form of tax but have a very unfavourable influence on the prices paid to the producers. It is for this reason that they were abrogated as regards barley, on 30 June 1930 and, for the other cereals and milling derivatives, on 1 May 1931. These duties amounted, expressed in lei per truck load (generally one hundred quintals), to the following sums:—

	before 30-6-30	30-6-30/ 30-5-31
Wheat	18,000	1,000
Rye	10,000	1,000
Barley	10,000	nil
Oats	10,000	1,400
Maize.	10,000	1,400
Wheat flour	10,000	
Rye flour	15,000	unchanged
Malt	10,000	
Groats and semolina.	10,000	

It was decided at the same time, along with the abolition of the export duties to exempt the sale of cereals and their derivatives from certain registration and stamp taxes and to exempt sales for export of cereals and their derivatives from the turnover tax.

The same law lays down that an organisation of cereal-exporters is to be founded and that exemption of the export-duties is limited to the shipments made by the members of this organization the object of which is the regulation of exports.

23. — SWEDEN.

In Sweden the production of cereals, although, in the southern parts of the country at least, having a fairly considerable importance, does not suffice to cover the requirements of consumption. The customs tariff of 1911 already aimed at protecting home production by duties which at that time were not small. These duties are still the same, and amount for wheat, rye and barley to cr. 3.70 per quintal and for cereal flours to cr. 6.50 per quintal while oats and maize are exempt.

During the crisis these duties were no longer sufficient to guarantee to the producer a price corresponding to the cost of production. For this reason a royal decree of 16 January 1930 prescribed that all oats imported must be colored, unless intended for the manufacture of oat products. The principal purpose of this stipulation was to prevent the use of inferior quality foreign oats for seed purposes. A further Royal Decree of 13 June 1930 compelled millers to add certain percentages of home-grown cereals to breadmaking mixtures and also established a control of imports with the object of assuring the absorption of home-grown cereals.

The following are the milling percentages enforced by successive measures :—

	Wheat	Rye
4 July to 15 July 1930	45	50
16 July to 31 August 1930	55	60
1 September to 31 October 1930	60	70
1 November to 31 December 1930	75	85
1 January to 28 February 1931	80	95
1 March to 31 July 1931	85	95
1 August to 30 September 1931	80	95
1 October to 30 November 1931	70	60
1 December 1931 to 31 May 1932	60	40
1 June to 30 June 1932	50	30
1 July to 31 August 1932	60	30
1 September to 16 September 1932	80	90
17 September to 15 October 1932	85	97
16 October to 31 December 1932	90	97
1 January to 31 May 1933	95	97
1 June 1933 and subsequently	98	98

The importer, on importing flour, is obliged to mix it with the flour from home-grown cereals in the same proportions as those stipulated for milling. For all mills of which the proprietors have declared themselves prepared to pay certain minimum prices for home-grown products of good quality, the percentage for mixing was fixed at a level 10 % lower than the figure fixed for the respective period. According to official statistics the millers who signed this agreement produce nearly 100 % of all wheat flour milled in the country and nearly 90 % of all rye flour.

Both parties to this agreement, but especially the millers, were opposed to this system so that other means were found to guarantee reasonable prices to the farmers. During the month of May 1931 the import of cereals was limited to a greater extent than was established by the decree of 13 June 1930, while a new decree of 29 May 1931, which came into force on 1 June, placed the entire regulation in the hands of a special organisation, the Swedish Cereal Company, which obtained the monopoly of importing wheat, rye, wheat flour and rye flour up to 31 December 1932. The Company agreed to buy, between 1 June and 31 July 1931 and during the corresponding months of 1932, all good quality home-grown wheat and rye which could be milled and which might be offered to it for sale before 15 June 1931 or 1 June 1932 respectively. The Company had in addition to assume the obligation of paying, at the time of purchase in June and July 1931, the minimum prices fixed for the month in question by the Government Commission for cereals and, at the time of purchase in June and July 1932, the prices which the Swedish Government might think fit to impose.

In 1932 further decrees were issued stipulating that the monopoly would remain in force until the end of 1933, while in addition the Company obtained the right to impose, on the import of the cereals, a certain compensatory tax

in order to cover its expenses and losses. On the other hand the Company again agreed to buy, at the minimum prices already fixed, all Swedish wheat and rye suitable for milling and to place it on sale before 1 June 1933.

Quite recently a new measure for assisting the cultivation of oats has been adopted. As from 1 June 1933 the mills which manufacture oat products (flakes, groats and meal) are compelled to use a minimum percentage of native oats in the process. For the months of June the percentage has been fixed at 40.

Another measure which also came into force on 1 June 1933 has an indirect influence on the position of the market for fodder crops. This refers to a consumers' tax of 2 crowns per quintal levied on oilcake and other similar feeds, the object being to increase the consumption of native products such as can take the place of products of foreign origin in cattle feeding.

To complete this résumé it remains to add that a Royal Decree of 13 April 1928 regulated the system of export certificates to be distributed on the export of wheat and rye in grain. These certificates, on which are recorded the sums which should have been paid as import duties had the same products been imported, are valid for six months and may be utilised in payment of the import duties on wheat or rye, in the grain or milled. This regulation, originally for a period ending on 31 July 1931, was prolonged until 31 July 1933. In addition there exists another measure, which came into force on 1 January 1930 and which brings immediate advantage to the millers only. The latter have obtained the right to import, after export of wheat flour or groats or of rye flour, a corresponding quantity of the same cereal whole.

24. — SWITZERLAND.

In Switzerland production of cereals has always been smaller than consumption. The shortage of cereals for breadmaking became particularly grave during the war and the Federal Government in July 1915 decided to monopolize the import trade, sale and distribution of cereals. The high prices prevalent during the war and for some years afterwards encouraged farmers to grow more cereals. The Government, to avoid a recurrence of the war-time crop situation, encouraged production still further by granting a milling premium amounting to 5 to 8 francs per quintal of cereals for breadmaking sent to the mill for the use of the farmer himself. The amount of the premium varied in relation to the altitude of the farm and, in certain circumstances, supplementary premiums of 1 to 3 francs per quintal were also given. In this way the Monopoly sold cereals and flour at very high prices, which had to be paid by the bread consumer and the purchaser of cereals for livestock feed. As this involved a serious increase in expenditure for these groups it was considered advantageous to modify the system, so that on 1 July 1929 trade was made free.

Under the new system, the restrictions on the import trade were removed except in the case of flour for breadmaking, the trade in which has remained under the direct control of the State. As a rule wheat flour has not been imported.

The Government has undertaken to maintain a regular stock of 500,000 quintals of wheat, rye and spelt so as to have supplies for at least two months, in the event of import being impossible. In order to encourage home production it also buys the whole of the marketable production of the same cereals at prices which in general vary from 45 to 38 francs per quintal (prices on the farm) and are fixed yearly before the time of sowing. Millers are obliged to store in their elevators half of the Government's cereal reserve and also to buy and mill cereals bought by the Government from the farmers.

The only restriction on imports of cereals in the grain for breadmaking is the obligation on the importer to observe the Government's regulations concerning the sale of these cereals, or, in other words, to sell only to millers or to other importers in the same position.

As production of the other cereals could not, under the new system, receive such effective Government assistance, it has become very difficult during the present crisis, the result being that, while the area of bread cereals has changed very little, that of other cereals has decreased, as is shown in the following summary (in hectares):—

	Wheat and rye	Barley, oats and maize
Average 1923-27	65,600	28,200
1928.	71,400	28,300
1929.	71,300	28,500
1930.	74,500	27,900
1931.	72,700	26,500
1932.	73,700	24,500

In order to remedy this situation, the import of all cereals in the grain was from 12 May 1932 onward made subject to the production of a special licence, which was generally, however, given to regular importers up to the quota usually imported by them.

From 15 August onward this measure was extended so as further to reduce freedom of sale, etc., by importers; all imports were to be controlled by the Central Office for Wheat and Fodder Meals and only members of this Office could obtain import licences. There was at the same time a quota allocation, which, while in general maintaining the possibility of importing 100 % of the quantity previously imported, restricted imports from certain places of origin.

Lastly, on 1 April 1933 the character of the import organisation was changed: the Swiss Cooperative Society for Cereals and Feedingstuffs has obtained strict control of imports and of quota allocation for wheat and rye and has become the sole importer of other cereals.

It should be added that theoretically it was possible before 12 May 1932 to import without control by State organisations but it was necessary to pay 20.00 francs per quintal in addition to the very low customs duty.

The import duties have, during the last decade, remained very low and at the same level as those fixed in the Customs Tariff of 1921. They are given below:—

Wheat, rye, barley, oats	0.60 francs per quintal
Maize	0.50 " " "
Cereal flours	4.50 " " "

In 1927 a supplementary duty was imposed on malting barley of 8.85 francs per quintal to which, on 22 March 1932, was added another supplementary duty of 15.50 francs so that the present payment is 24.85 francs. For maize a supplementary duty of 3.00 francs was introduced on 6 September 1932 and subsequently, on 18 October, changed to 4.00 francs, giving a total duty of 4.50 francs; for oats, as from 11 April, a supplementary duty of francs 4.00 is levied, making a total of francs 4.60.

25. — CZECHOSLOVAKIA.

Introduction. — Cereal production is of great importance to the Czechoslovakian Republic but, for all of the principal kinds except barley and oats, there is still an import surplus. The following figures are typical of the situation, for the quinquennial period 1923-27 (area in thousands of hectares, production, import surplus (+) and export surplus (—) in thousands of quintals):—

	Area	Production	Surplus
Wheat	721	11,568	+ 5,530
Rye	1,015	15,488	+ 1,448
Barley	692	11,622	— 1,071
Oats	829	13,108	— 109
Maize	139	2,457	+ 2,655

Cereal production was protected before the war in the Austro-Hungarian Empire and was well developed especially on the large estates then in existence. But with the land reform and the division of these estates into small farms, it became difficult to obtain the same results. The tendency in the Republic, as in the other Succession States, was to protect all industries and enterprises worthy of assistance, in order to attain for a much smaller territory a position of stability comparable with that of the pre-war period. The protection of cereal production was in accordance with such a policy. It was first organized by the law of 4 June 1925, which established a sliding scale of duties to be fixed each month in relation to the average price of cereals on the principal markets of the country, and later, as this law did not give satisfactory results, by a new law of 22 June 1926. This law (which came into force on 14 July 1926) in the first place fixes maximum duties which, however, were never enforced, and in another clause minimum duties which have been applied to imports. Owing to the fall in prices on the free markets, however, this protection was in 1930 inadequate and under the law of 5 June 1930 the sliding scale was again introduced. From 6 July a supplementary duty was added to the minimum duties on wheat, rye, barley, oats in the grain, as well as on all flour and other milling products of cereals, to be varied in accordance with the average quarterly price of each of these products, subject to a comparison of this average price with the average price less 11 % of the same product on the Prague market in the period 1925 to 1929. The law, moreover, fixes maxima for these supplementary duties, which, together

with the minimum duties of the law of 1926, are given below (in Czechoslovakian crowns per quintal) :—

	Basic duty	Supplementary duty
Wheat	30.00	25.00
Rye	38.00	50.00
Barley	34.00	36.00
Oats	36.00	34.00
Flours and other milling products of cereals	70.00	75.00

The supplementary duties on wheat, on rye and on flours, etc. could not take immediate effect because the minimum duties were fixed in the commercial treaty with Hungary. The latter treaty was terminated in order to obtain greater liberty in this respect, so that from 15 December 1930 onwards the duties have been active also in respect to shipments for countries enjoying most favoured nation treatment.

For maize there are no supplementary duties. The minimum duty, also fixed in the commercial treaty with Rumania, amount to 18 kč., except for the duty on fodder maize, recognised as such, which is only 6.00 kč.

To avoid any encouragement of speculation under the sliding scale, another law of June 1930 introduced fresh regulation by import certificates or "Einfuhrscheine".

Against exports of rye, barley, oats and several other agricultural products, the exporter is, subject to certain conditions, granted certificates entitling the holder to import free of duty, within nine months, the quantity of wheat, rye, barley, oats, maize, flour, and other cereal milling derivatives, besides certain other products, corresponding to the customs value of the import certificate. This value is fixed at 38.00 kč. per quintal of rye exported, 30.00 kč. for barley and 36.00 kč. for oats. In addition, millers may, on their own account, obtain certificates for the export of flour and other milling products of wheat, rye, barley and oats, as well as for the products of their own farms in the country. These certificates amount in value to the minimum duty (exclusive of supplementary duty) to be paid on the import of a corresponding quantity of the same cereal in the grain.

The changes made in the regulations of 1926 consist principally of the issuing of certificates for exports of barley and certain other products and the granting of the possibility of using the certificates for payment of the duties on flour.

Other measures, in part comprised in the law already mentioned on supplementary customs duties as well as in the two laws of 10 April 1930 (coming into force on 24 April) and a law of 7 November (coming into force partly on 11 and partly on 26 November), give assistance of a more internal character. The first law prohibits the sale of chemically bleached flour. One law of 10 April obliges the public offices and institutions to meet their requirements of cereals in the grain (exclusive of maize), of flour and of other milling products, as well as of a number of other agricultural products, exclusively by purchase of the home product. The object of the second law is to facilitate, to some extent,

the sale of home-grown rye by increasing the consumption of rye flour. This was to be accomplished by encouraging the manufacture of bread made of unmixed rye flour, by the prohibition of the making of bread with rye flour mixed with more than 10 % of suitable wheat flour and, lastly, by fixing a maximum bolting percentage of 65 %. It was no longer permissible to use mixtures in the manufacture of this bread.

The law of 7 November concerns the compulsory milling of home-grown wheat and rye. It states that all flour freely traded in within the country must contain at least 75 % of flour milled from home-grown wheat. For rye flour the minimum percentage is as high as 95 %. All imported wheat and rye must be mixed before entering into the trade, the mixture thus containing at least the same percentage of the home-grown product. This law expired on 31 August 1931.

It should further be mentioned that, besides the import duties, turnover taxes are also levied on imports. These taxes on 1 January 1931 amounted for wheat and barley, to 1.50 Kč. per quintal and for rye, oats, maize and flour respectively, to 1.80, 2.20, 2.50 and 5.00 Kč.

From 11 November onward, the supplementary duties reached the maxima given above. It should also be noted that from March 1931 onward these duties were again fixed monthly. The decrees are, in general, published 5 days before entering into force.

The import of rye, barley and flour of these cereals from 3 March 1930, and that of wheat, maize, wheat flour, oat meal and maize meal from 29 December 1930 are subject to the production of a special import licence.

A description is given below of all the important measures taken after end of 1930 in so far as at present known at the Institute.

Wheat and its derivatives.

- A. 1 (25-3-31) Wheat and cereal flours: supplementary duty unchanged; that on wheat in the grain remained at the maximum throughout the period under consideration.
- A. 2 (9-4-31) Cereal flour: supplementary duty: Kč. 74.00.
- A. 3 (9-5-31) Wheat flour: supplementary duty: Kč. 65.00.
- E. 1 (18-5-31) Minimum percentage of home-grown wheat for milling 50 % (reg. in force until 31-7-31).
- A. 4 (4-6-31) Wheat flour: supplementary duty: Kč. 51.00.
- C. 1 (2-7-31) Interministerial commission for the authorisation of imports of cereals and cereal flours constituted. The Commission to fix each month in accordance with the interests of agriculturists as well as of consumers the quota to be imported. These quotas are not known to the Institute. The Commission has the power to grant import licences depending upon the purchase of the same products of home origin.
- E. 2 (31-8-31) Law of 7-11-30, concerning the minimum proportion of home-grown flour for milling, expired.
- A. 5 (9-7-31) Cereal flours: supplementary duty: Kč. 41.00.

B. 1 (26-7-31) Payment for import licence of whole cereals, flour, etc., 1^o, *ad valorem*.

A. 6 (9-8-31) Cereal flours: supplementary duty: Kč 29.00.

A. 7 (9-9-31) Cereal flours: supplementary duty: Kč 47.00.

A. 8 (10-10-31) Cereal flours: supplementary duty: Kč 53.00.

A. 9 (10-11-31) Cereal flours: supplementary duty: Kč 55.00.

A. 10 (8-12-31) Cereal flours: supplementary duty: Kč 52.00.

E. 3 (31-12-31) The law of 10-4-30, the regulations of which were no longer in force, provisionally abrogated.

B. 2 (1-1-32) Turnover tax modified:—

Wheat and barley	15	0/0	<i>ad valorem</i>
Rye.	18	0/0	"
Oats	22	0/0	"
Maize.	25	0/0	"
Flour and other cereal derivatives.	50	0/0	"

A. 11 (10-1-32) Cereal flours: supplementary duty: Kč 50.00.

A. 12 (10-3-32) Cereal flours: supplementary duty: Kč 54.00.

A. 13 (6-4-32) Cereal flours: supplementary duty: Kč 55.00.

B. 3 (1-6-32) Turnover tax modified:

Wheat	25	0/0	<i>ad valorem</i>
Wheat and barley	25	0/0	"
Rye.	22	0/0	"
Oats	18	0/0	"
Maize.	15	0/0	"
Flours and other derivatives	80	0/0	"

A. 14 (9-7-32) Cereal flours: supplementary duty: Kč 56.00.

C. 2 (28-7-32) Import of cereals and their flours subjected to control and quota-fixing by a private company, the "Syndicate for the Import of Cereals" consisting of representatives of five large organisations interested in the import of these products. The Government has concluded an agreement with the Syndicate, giving it the power of fixing the quotas each month in accordance with internal prices. These prices are, for the qualities and types, normal in Prague: wheat, minimum: Kč 150.00; maximum Kč 175.00; rye, minimum: Kč 132.50; maximum: Kč 152.50. The quotas are not known to the Institute.

B. 4 (28-7-32) The Syndicate for the Import of Cereals to levy duties: whole cereals other than maize: Kč 1.00; maize: 12.00; flours, etc. of cereals: Kč 2.50.

A. 15 (10-8-32) Cereal flours: supplementary duty: Kč 58.00.

D. 1 (12-8-32) All the preceding regulations concerning import licences abrogated. An exchange certificate to be obtained for imports.

A. 16 (6-9-32) Cereal flours: supplementary duty: Kč 61.00.

A. 17 (10-10-32) Cereal flours: supplementary duty: Kč 63.00.

A. 18 (10-11-32) Cereal flours: supplementary duty: Kč 65.00.

- E 4 (14-12-32) The law of 10-4-30 concerning breadmaking again brought into force.
- A 19 (10-1-33) Cereal flours: supplementary duty kč. 68 00.
- A 20 (9-3-33) Cereal flours: supplementary duty kč 74 00.
- A. 21 (9-3-33) Cereal flours: supplementary duty: kč. 75.00.

Rye and its derivatives.

- A. 1 (25-3-31) Rye and rye flour : supplementary duty unchanged. For modifications in supplementary duties on flour and other milling derivatives of rye, see Wheat.
- A. 2 (9-5-31) Rye : supplementary duty : kč. 46.00.
- A. 3 (15-5-31) Rye : owing to scarcity of rye for breadmaking, duty provisionally reduced by kč. 25.00 on the total published as basic duty and supplementary duty (reduction in force until 30-6-31).
- E. 1 (18-5-31) Minimum percentage of home-grown rye for milling: 10 % (reg. in force until 31-7-31).
- E. 2 (18-5-31) The addition of 25 % of wheat flour to rye flour for the baking of rye bread, is allowed
- G. 1 (22-5-31) Rye : owing to scarcity of rye for breadmaking, export subject to the production of a special licence until the new crop available.
- A. 4 (4-6-31) Rye : supplementary duty kč. 30.00.
- C. 1 (2-7-31) See C. 1 wheat.
- A. 5 (9-7-31) Rye : supplementary duty : kč. 19.00.
- B. 1 (26-7-31) See B. 1 wheat.
- A. 6 (9-8-31) Rye : supplementary duty kč. 17.00
- E. 3 (31-8-31) See E. 2 wheat.
- A. 7 (9-9-31) Rye : supplementary duty kč. 19.00
- A. 8 (10-11-31) Rye : supplementary duty kč. 18.00
- A. 9 (8-12-31) Rye : supplementary duty kč. 15.00.
- E. 4 (31-12-31) See E. 3 wheat.
- B. 2 (1-1-32) See B. 2 wheat.
- A. 10 (10-3-32) Rye : supplementary duty kč. 20.00.
- A. 11 (10-4-32) Rye : supplementary duty kč. 22.00.
- A. 12 (8-5-32) Rye : supplementary duty kč. 24.00.
- B. 3 (1-6-32) See B. 3 wheat.
- A. 13 (5-7-32) Rye : supplementary duty kč. 27.00
- C. 2 (28-7-32) See C. 2 wheat.

- B. 4 (28-7-32) See B. 4 wheat.
- A. 14 (10-8-32) Rye : supplementary duty kč. 29,00
- D. 1 (12-8-32) See D. 1 wheat
- A. 15 (6-9-32) Rye : supplementary duty kč. 39,00.
- A. 16 (10-10-32) Rye : supplementary duty kč. 48,00
- A. 17 (10-11-32) Rye : supplementary duty kč. 50,00
- E. 5 (14-12-32) See E. 4 wheat.

Barley and its derivatives.

- A. 1 (25-3-31) Barley, barley meal, etc. : supplementary duty barley kč. 35,00
supplementary duty meal, etc., unchanged. For the latter duty see
wheat.
- A. 2 (9-4-31) Barley : supplementary duty kč. 28,00.
- A. 3 (9-5-31) Barley : supplementary duty kč. 22,00.
- A. 4 (6-6-31) Barley : supplementary duty kč. 19,00.
- C. 1 (2-7-31) See C. 1 wheat.
- A. 5 (9-7-31) Barley : supplementary duty kč. 23,00.
- B. 1 (26-7-31) See B. 1 wheat.
- A. 6 (9-8-31) Barley : supplementary duty kč. 34,00.
- A. 7 (9-9-31) Barley ; supplementary duty kč. 36,00.
The supplementary duty on barley from this date has remained the same
throughout the period under consideration.
- B. 2 (1-1-32) See B. 2 wheat.
- B. 3 (1-6-32) See B. 3 wheat.
- C. 2 (28-7-32) See C. 2 wheat.
- B. 4 (28-7-32) See B. 4 wheat. The payment for import licence on maize to be
used to assist the domestic cultivation of barley.
- D. 1 (12-8-32) See D. 1 wheat.

Oats and oat derivatives.

- A. 1 (23-3-31) Oats and oat meal, etc. : supplementary duty unchanged. For
modifications in the supplementary duties on meal and other oat mil-
ling derivatives see wheat.
- A. 2 (9-4-31) Oats : supplementary duty kč. 27,00.
- A. 3 (9-5-31) Oats : supplementary duty kč. 14,00.
- A. 4 (4-6-31) Oats : supplementary duty kč. 2,00.

- C. 1 (2-7-31) See C. 1 wheat.
- A. 5 (9-7-31) Oats : supplementary duty abolished.
- D. 1 (9-7-31) Oats : import subject to production of a special licence.
- B. 1 (26-7-31) See B. 1 wheat.
- A. 6 (9-9-31) Oats : supplementary duty kč. 7.00.
- A. 7 (10-10-31) Oats : supplementary duty kč. 18.00.
- A. 8 (10-11-31) Oats : supplementary duty kč. 29.00.
- A. 9 (8-12-31) Oats : supplementary duty kč. 30.00.
- B. 2 (1-1-32) See B. 2 wheat.
- A. 10 (10-1-32) Oats : supplementary duty kč. 33.00.
- A. 11 (10-2-32) Oats : supplementary duty kč. 34.00. The supplementary duty on oats from this date has remained the same throughout the period under consideration.
- B. 3 (1-6-32) See B. 3 wheat.
- C. 2 (26-7-32) See C. 2 wheat.
- B. 4 (28-7-32) See B. 4 wheat.
- D. 2 (12-8-32) See D. 1 wheat.

Maize and its derivatives :

- A. 1 (25-3-31) No supplementary duty on maize. For the supplementary duty on maize meal and other milling derivatives see wheat.
- C. 1 (2-7-31) See C. 1 wheat.
- B. 1 (26-7-31) See B. 1 wheat.
- B. 2 (1-1-32) See B. 2 wheat.
- B. 3 (1-6-32) See B. 3 wheat.
- C. 2 (28-7-32) See C. 2 wheat.
- D. 1 (15-2-32) Issue of import licences subject to availability of exchange.
- B. 4 (28-7-32) See B. 4 wheat.
- D. 2 (12-8-32) See D. 1 wheat.

26. — YUGOSLAVIA.

Yugoslavia is a cereal-exporting country which has been severely affected by the crisis. Prices were in 1930, owing to the large quantities offered for sale immediately after the harvest, 30 to 45 dinars below what would have been normal in relation with prices then ruling on the principal markets of Western Europe.

The Government, in order to improve the situation, founded the "Privileged Company for the Export of Agricultural Products", which during its first year of working (10 June 1930 to 9 June 1931) purchased from growers and exported abroad 568,000 quintals of wheat and 1,595,000 quintals of maize representing nearly one half of the Yugoslavian wheat export and over 40 %, of that of maize during this period.

The poor financial results of this Company were in part attributed to the existence also of unregulated trading. Accordingly a new law, which entered into force on the day of its promulgation (27 June 1931), reserved to the State and its organisations the monopoly of the import and export trade in cereals. The State entrusted the transaction of its business to the Privileged Company while, on 4 July, a further measure made it possible to reserve to the State and to organisations acting on its behalf the exclusive right to purchase wheat, rye and wheat flour temporarily and in case of necessity for districts to be determined at the given time. In accordance with these measures the Company was authorised to buy directly from producers and agricultural cooperative societies any quantity of wheat at a price not below 160 dinars per quintal (for average quality).

From 31 March 1932 onward regulation of the cereal trade has again been withdrawn.

The Company also undertook the regulation of the import trade with France in each commercial year in accordance with the commercial treaty existing between the two countries, stipulating that France should cover 10 % of its requirements in Yugoslavia at world prices and on payment of the minimum duty, with the repayment, however, of not more than 30 % of this total sum for the purpose of assuring a remunerative wheat price to the Yugoslav farmer. The Company has also concluded special agreements with Czechoslovakia and Austria.

The following indication may be made of the customs duties and other import charges.

The import duties have been increased several times, as may be seen from the summary given below, which does not include, however, the conventional duties ruling in 1929 and 1930 under the treaty with Albania. These duties, during most of the period mentioned, were not effective, but merely served to indicate the maximum which could be levied on Albanian shipments in the event of Yugoslavia desiring to increase the duties. The following are the minimum duties which in practice are the only ones levied (expressed in gold dinars per quintal):—

	Wheat	Rye	Barley	Oats	Maize	Cereal flour
13- 8-25 . . .	2.50	2.50	1.50	1.50	1.25	4.00
14- 4-28 . . .	..	..	..	..	..	10.00
14-11-28 . . .	..	..	..	..	..	8.00
6-11-30 . . .	5.00	..	3.00	3.00	2.50	..
10- 2-31 . . .	10.00	10.00	..	..	5.00	..
12-11-31 . . .	..	..	6.00	..	..	..

The duty of 8 00 gold dinars of 14 November 1928 was a conventional duty under the commercial treaty with Italy and remained in force until 1 September 1932 (duty from this date onward: 16.00 gold dinars).

Besides these duties turnover taxes are levied on imports, differing from the taxes levied on business transactions within the country. These taxes, expressed in percentages *ad valorem* (for the products imported, including the import duty), are as follows (coming into force 1-8-31):—

	Import tax	Internal trade tax
Cereals in the grain.	2 %	1 %
Cereals flour	2.8 %	2.2 % of the price of the quantity of cereals (in the grain) used.

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CORRIGENDA

for the *Monthly Bulletin of Agricultural Economics and Sociology*,
No. 8, August 1933.

On page 325-E read :

B. 2 (I-1-32) Turnover tax modified :—

Wheat and barley	Kč. 1.50 per quintal
Rye.	» 1.80 „ „
Oats	„ 2.20 „
Maize.	„ 2.50 „ „
Flour and other cereal derivatives.	„ 5.00 „

B. 3 (I-6-32) Turnover tax modified :—

Wheat and barley	Kč. 2 50 per quintal
Rye.	„ 2.20 „ „
Oats	„ 1.80 „ „
Maize.	1.50 „ „
Flours and other cereal derivatives.	„ 8 00 „ „

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ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

The Migration Problem in its Relation to Agriculture.

COURSE OF THE MIGRATION MOVEMENT IN PRE- AND POST-WAR TIMES

The economic transformation which took place in the middle of last century was accompanied by an immense migration of population alike from country to country and within the boundaries of the separate countries. The two types of migration were closely linked together, and it is impossible to consider one apart from the other.

In proportion to the progress of industrialisation in a country the *internal migration* became generally increasingly marked, the migration, that is to say, from the agricultural to the non-agricultural occupations, from the country to the town. This migration was generally known as the *rural exodus* or "flight from the land." Its significance and consequences, but especially its causes, were much in dispute. That the causes are to be sought in the differences between rural and town conditions is obvious. Attracted by the free and stirring life in towns and industrial centres, the young people, in particular, abandoned agriculture and the land, and endeavoured to improve their social and economic position. The many laments over the rural exodus were justified by the fact that it was not merely the densely populated areas of small farming which supplied the stream of migrants, but also the sparsely settled districts of large farms. Hence while in the areas of small farming the migration was recognised as bringing some relief in the situation, the consequence in the less densely populated districts was shortage of labour. But as the wage-paying capacity of these districts was determined by the competition with districts where the natural and economic conditions were more favourable, retention of the workers on the land by the method of wage increases was only possible to a limited extent. Land settlement would have provided an outlet, but settlement on any large scale was non-existent in European countries. Depopulation accordingly went on and the permanent workers who were no longer available were replaced by seasonal labour, with the result that the migration of seasonal workers took on dimensions previously unknown.

In the industrial countries belief in the fundamental importance of agrarian economy and of the agricultural population began to be shaken. The supply

of food was easily assured by the export of industrial products of high value. Difficulties from shortage of farm labour were met by engagement of seasonal migratory labour or there was always the alternative of allowing the land to relapse to extensive cultivation. Industrialisation was the order of the day: in fact it seemed to offer the only possibility of absorbing the immense increase of population that went on during last century.

On the other hand industrialisation and the migration movement could not of course have assumed the forms they did, apart from the population increase of that time. The concentration in large towns and industrial districts could not fail to accentuate the cleavage between the agricultural and the non-agricultural population. The town became the deciding influence on technical as well as on general educational progress, and the town moreover assumed political mastery over the country. The rural, especially the agricultural population, was in low esteem; the rising generation would have nothing to do with the land.

Different conditions prevailed in those countries of Europe where the basis was agrarian. For their population increase room was found in their own agriculture, and in consequence of the growing excess food requirements of the industrial countries their agriculture could proceed to remarkable advances in production. Here and there industries were set up, and these could absorb the new labour forces.

A greater, or at least as great an importance, attached to *seasonal or permanent emigration*. As time went on the numbers increased of those who went as emigrants to other European countries, there to take up farm work abandoned by the workers of that country in favour of industrial occupations or themselves to find a living as industrial workers. Much greater, however, indeed almost unlimited, was the absorption capacity of the overseas lands for immigrants. An unhindered expansion of agriculture went on in these countries, and every fresh expansion created a demand for more labour, and at the same time led to an increase in the labour requirements of the other branches of economy. When in the last pre-war decade the absorption capacity of agriculture diminished, in several of the overseas countries industrialisation began to gain ground, with a noticeable effect on the component elements in the immigration, although not on its extent. Among the overseas immigration countries the United States held an exceptional position. It was not merely the most important of the immigration countries, but within its borders there was a very large movement from country to town, and also a marked accession of foreigners into both urban and rural districts.

If the immense range of the pre-war migration movement had many prejudicial consequences of a political and social character, the advantages were none the less great. Apart from this movement, the economic transformation of the world could not have been contemplated, and hence no country so much as thought of placing serious obstacles in the way of the migrations. This applies equally to internal migration as to inter-state emigration and immigration. Freedom of international migration was an essential element in the relations of the separate countries and a corollary of the freedom of international trade.

The migration movement of the pre-war time was abruptly checked by the war. But scarcely was the war ended and the world entered with renewed hopes on the work of reconstruction, than the stream of migration once more set in following the same direction. *Internal migration*, especially in the industrialised countries, assumed even larger dimensions than in pre-war times. Industry and trade attracted ever widening circles of the rural population. This migration from the rural areas was felt at first as a relief of the situation, since in the first years after the war there was an abundant supply of agricultural labour. In addition, the disparity between prices of agricultural products and wages made obligatory an extensive reduction in the employment of labour. The wages paid by the industries everywhere springing up or in course of development could not possibly be reached in agriculture. Gradually difficulties in obtaining farm labour began to appear. In all systematic farming and farm organisation the question of economy in labour became of increasing importance. The chief outcome of this was the further speeding up of mechanisation and rationalisation.

The migration from the country still continued even when the signs of the economic crisis were becoming noticeably clearer and the unemployment figures were increasing. The laments over the rural exodus were thus doubly justified, and it is easy to understand the fact that endeavours were made in different countries to limit the migration from the land even by compulsory measures. But the increase in industrial unemployment soon put bounds to this migration and the "flight from the land" was gradually replaced by a "flight from the town". In the very countries, from which arose the most lively protests about the urbanisation of the population and the depopulation of the country side, the new trend of migration assumed its greatest extent. "Back to the land" has become the universal solution: in all countries, whether agrarian or industrial, the same cry is heard. Already sporadic endeavours were being made to bring back sections of the population from the town to the country.

Although the new migration trend has been in existence for over two years, it is still much in dispute. In no country are there adequate data as to its extent. From some survey of the movement on the different countries, the conclusion is reached that, with the possible exception of the United States, the phrase «flight from the town» as opposed to the «flight from the land» which was the designation of the earlier internal migration trend, implies not so much a flight out of the town as rather the cessation or marked decline of the migration towards the towns and generally of the internal migration, and can only be applied in this sense.

As regards *interstate migration* this was reduced towards the end of the war to a minimum. On the conclusion of the war the return of emigrants which during the war had been completely checked was resumed and to an unprecedented extent. At the same time owing to political causes a marked shifting of population took place. The establishment of new boundaries together with the provision made in the Peace Treaties for an option for individuals in respect of nationality had the effect of increasing migration. Thus, for example, considerably over one million Germans, from 230,000 to 250,000 Hungarians and over 100,000

Transoceanic and continental migrations of nationals and of aliens

COUNTRIES	1913	Annual averages 1920-24
<i>United States:</i>		
Transoceanic emigration of nationals . . . . .	...	38,177
Continental emigration of nationals . . . . .	...	18,038
Transoceanic immigration of aliens	1) 1,112,164	394,144
Transoceanic emigration of aliens	1) 260,218	148,914
Continental immigration of aliens . . . . .	...	157,747
Continental emigration of aliens . . . . .	...	7,767
<i>Canada:</i>		
Continental immigration of nationals . . . . .	...	...
Transoceanic immigration of aliens	303,087	85,658
Continental immigration of aliens . . . . .	...	30,362
<i>Argentina:</i>		
Transoceanic and continental immigration of aliens	302,047	132,325
Transoceanic and continental emigration of aliens	156,829	46,636
<i>Brazil:</i>		
Transoceanic and continental immigration of nationals . . . . .	...	...
Transoceanic immigration of aliens	190,333	74,049
Transoceanic and continental emigration of nationals and aliens . . . . .	...	33,774
Continental immigration of aliens . . . . .	...	...
<i>Union of South Africa:</i>		
Transoceanic immigration of aliens 2)	14,251	3) 16,863
Transoceanic and continental emigration of nationals and aliens . . . . .	...	3) 12,722
Continental immigration (statistics of labour contracts) 4) . . . . .	...	...
<i>Australia:</i>		
Transoceanic immigration of nationals and aliens	141,006	3) 90,827
Transoceanic emigration of nationals and aliens	87,131	3) 62,169
Continental immigration of nationals and aliens . . . . .	...	...
Continental emigration of nationals and aliens . . . . .	...	...
<i>New Zealand:</i>		
Transoceanic immigration of aliens . . . . .	...	14,538
Transoceanic emigration of nationals and aliens . . . . .	...	2,605
Continental immigration of aliens . . . . .	...	1,709
Continental emigration of nationals and aliens . . . . .	...	1,536

1) Fiscal year.

2) From 1927 onwards, transoceanic and continental immigration.

3) Travellers.

4) Native workers recruited outside the Union.

Sources. — League of Nations, International Statistical Year-Book 1928, Geneva 1929; Statistics of Emigration and Immigration *International Labour Review*, Vol. XXVII, No. 1, January 1933, Geneva 1933, and for 1931 the statistics also published by the International Labour Office in *Industrial and Labour Information*.

Note. — Transoceanic or overseas migrations include all migration by sea from one of the five continents of the world to another, as well as migration between North and South America. Continents

in certain European and extra-European countries (1913 and 1920-32).

1925	1926	1927	1928	1929	1930	1931	1932
15,194	15,797	11,223	6,074	5,829	4,128	2,828	...
10,235	12,385	11,563	15,358	17,614	16,611	17,165	...
160,515	179,013	176,744	170,470	174,211	135,437	31,042	...
75,848	68,061	68,677	69,384	41,956	42,947	50,010	...
121,211	157,282	147,141	119,467	94,730	48,794	11,711	...
5,841	5,118	6,445	8,215	11,217	9,983	33,560	...
39,987	62,293	42,078	34,120	30,479	31,608	20,352	...
67,190	115,040	135,066	136,849	133,142	79,174	12,335	...
17,717	20,944	23,818	29,933	31,852	25,632	15,195	...
125,366	135,011	161,548	129,047	140,086	124,006	56,333	...
49,841	55,769	57,936	54,262	58,365	59,734	53,677	...
...	...	3,594	3,933	4,238	4,456	3,945	...
81 613	117,714	96,880	76,586	94,931	61,099	26,183	...
...	...	41,573	39,702	...	...	...	...
...	...	1,094	1,542	1,255	1,517	1,282	...
5,428	6,575	7,341	7,819	8,838	7,101	5,023	...
6,041	6,137	7,255	7,909	15,047	5,099	4,747	...
...	40,968	46,187	74,943	106,764	192,994	...	...
52,235	55,923	61,655	43,933	28,539	15,301	7,802	...
17,360	13,201	13,773	15,446	17,177	21,553	17,989	...
4,242	3,541	5,423	4,300	3,159	2,236	1,579	...
4,547	4,232	4,159	4,202	4,749	6,212	3,876	...
13,685	15,981	9,818	4,817	4,321	4,752	1,563	...
728	868	1,188	1,413	1,387	1,216	1,968	...
2,019	1,887	1,509	1,522	2,022	2,166	1,673	...
1,218	2,713	2,957	2,541	7,706	1,233	724	...

migrations include all migrations by sea or by land within each continent, North and South America being taken separately. Thus, for example, emigration from Australia to New Zealand is considered as being continental.

As the immigration of "nationals" represents mainly repatriation of nationals who have temporarily emigrated, the difference between the two groups of nationals (i.e. emigrated and immigrated) gives the net emigration. Similarly, the difference between the number of alien immigrants and of alien emigrants gives the net immigration.

The average figures given for 1920-24 represent averages of figures available during this period.

For further details and explanatory notes, see Statistics of Emigration and Immigration, *International Labour Review*, Vol. XXVII, No. 1 January 1933, Geneva 1933.

in

Transoceanic and continental migrations of nationals and of aliens

COUNTRIES	1913	Annual averages 1920-24
<i>Germany:</i>		
Transoceanic emigration of nationals	25,843	48,205
Transoceanic immigration of nationals (travellers arrived) . . . . .	...	...
Continental emigration of nationals . . . . .	...	...
Transoceanic emigration of aliens . . . . .	...	...
Continental immigration of aliens (identity card statistics) . . . . .	...	...
<i>Belgium:</i>		
Transoceanic emigration of nationals	7,590	2,525
Transoceanic immigration of nationals . . . . .	...	1,275
Continental emigration of nationals . . . . .	...	21,669
Continental immigration of nationals . . . . .	...	10,483
Transoceanic immigration of aliens . . . . .	...	1,112
Transoceanic emigration of aliens . . . . .	...	520
Continental immigration of aliens . . . . .	...	24,195
Continental emigration of aliens . . . . .	...	10,553
<i>France:</i>		
Transoceanic emigration of nationals . . . . .	...	2,080
Continental immigration of aliens . . . . .	...	164,427
Continental emigration of aliens . . . . .	...	46,715
<i>Irish Free State:</i>		
Transoceanic emigration of nationals . . . . .	...	16,236
Transoceanic immigration of nationals . . . . .	...	2,789
Transoceanic immigration of aliens . . . . .	...	...
Transoceanic emigration of aliens . . . . .	...	...
<i>Italy 2):</i>		
Transoceanic emigration of nationals	559,566	172,471
Transoceanic immigration of nationals	188,987	66,458
Continental emigration of nationals . . . . .	...	182,622
Continental immigration of nationals . . . . .	...	65,521
<i>Poland:</i>		
Transoceanic emigration of nationals . . . . .	...	55,577
Transoceanic immigration of nationals . . . . .	...	33,325
Continental emigration of nationals . . . . .	...	33,708
Continental immigration of nationals . . . . .	...	...
<i>United Kingdom 3):</i>		
Transoceanic emigration of nationals	389,394	214,067
Transoceanic immigration of nationals	85,709	69,433
Transoceanic immigration of aliens . . . . .	...	...
Continental immigration of aliens . . . . .	...	2,732
<i>Czechoslovakia:</i>		
Transoceanic emigration of nationals . . . . .	...	13,104
Transoceanic immigration of nationals . . . . .	...	3,715
Continental emigration of nationals . . . . .	...	28,421
Continental immigration of nationals . . . . .	...	...
Transoceanic immigration of aliens . . . . .	...	...

1) The identity card statistics are based on the number of identity cards issued to foreign workers by the German Central Office for Workers (*Deutsche Arbeitszentrale*); they do not give a complete record of continental immigration, particularly as the activity of the Office does not extend to the States of Bavaria, Saxony, Württemberg, Baden, Oldenburg and Bremen.

certain European and extra-European countries (1913 and 1920-32).

1925	1926	1927	1928	1929	1930	1931	1932
62,154	64,001	60,861	56,566	48,441	37,199	13,513	10 325
...	...	38,271	45,075	38,463	43,097	40,417	...
...	...	518	675	293	200	131	...
910	1,139	1,268	992	1,032	4,098	912	...
...	...	130,584	135,923	125,388	109 421	50,141	..
2,495	3,672	3,498	2,497	3,088	2,564	1,292	...
1,033	1,112	1,252	1,476	1,486	1,732	2,159	...
18,399	18,966	13,149	12,181	10,455	9,901	7,124	...
9,421	8,865	8,365	7,587	7,460	7,695	6,687	...
1,732	1,604	1,577	1,880	1,643	1,765	1,181	...
803	742	1,141	788	1,225	1,045	444	...
34,734	32,944	29,973	31,034	45,006	43,217	22,018	...
13,376	13,405	12,153	12,837	14,393	16,048	10,391	...
1,863	3,751	3,610	3,448	3,531	2,970	1,802	...
176,261	162,109	64,325	97,742	179,321	221,619	102,967	...
54,397	41,174	89,982	53,709	38,870	43,739	47,916	...
30,180	30,041	27,148	24,691	20,802	15,966	1,462	...
2 155	1,786	1,904	2,153	2,120	2,597	3,407	...
636	197	178	737	617	608	695	...
121	318	161	109	106	236	95	...
114,000	129,000	146,000	70,794	61,777	59,112	40,785	..
73,000	79,000	90,000	49,751	44,186	46,561	43,405	...
178,000	141,000	92,000	79,173	88,054	220,985	125,079	..
137,000	119,000	81,000	49,001	64,887	82,461	61,339	...
38,449	49,893	58,187	64,581	65,310	46,534	11,770	9,661
4,101	6,017	6,799	6,159	6,571	7,625	7,223	5,867
42,769	117,616	89,427	122,049	178,132	171,853	64,235	11,766
17,131	49,171	73,014	112,921	97,932	93,459	80,455	32,113
140,594	166,601	153,505	136,834	143,686	92,158	34,310	26,988
56,335	51,063	55,715	59,105	56,217	66,203	71,382	75,595
490	786	832	1,202	1,524	1,417	1,211	...
4,789	5,230	7,020	9 012	11,052	11,979	12,973	...
7,379	12,063	14,787	15,192	12,748	8,833	2,781	...
2,601	2,795	2 839	2,800	2,363	2,973	2,997	...
28,697	26,480	23,272	28,845	35,063	39,972	26,434	...
2,363	1,765	3,959	2,640	2,203	1,769	3,253	...
46	26	46	269	474	394	...	...

2) From 1928 onwards the figures are not comparable with those for earlier years.

3) Up to 1922 including Ireland, from 1923 onwards Northern Ireland only.

4) Nationals and aliens.

Czechoslovakians migrated. Finally emigration in the proper sense came into play once more. Interstate migration was, however, affected by the changed conditions even more than internal migration. Freedom of migration may be said to have disappeared in post-war times. Scarcely had a new order of things emerged from the confusion of the war and post-war times, and scarcely had the conditions arisen making possible a revival of emigration, than the United States announced an important limitation of immigration. Gradually in the course of years the remaining immigration countries followed suit and there came about a fundamental change in the conditions under which formerly all world labour markets were open to all seeking work. At the present time the interstate migration movement is compressed within exceedingly narrow limits. Not only so, but it has in a measure become reversed; countries which were previously immigration countries now show losses by migration, and in the former emigration countries the return movement exceeds the outward movement.

In view of the many lacunae and other defects which are still always found in emigration statistics, the statement appended here is confined to the immigration and emigration affecting the most important overseas countries and the principal European countries of emigration respectively. These returns illustrate with sufficient clearness the course of the development during the post-war years with its manifold contradictions. Even a cursory examination of the immigration figures included in the first table will reveal the change that has taken place. Of an immigration which in the last pre-war years amounted to over two million persons there is left in the recent years no more than a movement of a few hundred thousands.

CAUSES OF THE PRESENT POSITION OF THE MIGRATION MOVEMENT.

It is undoubtedly possible to indicate many causes which account in common for the present position of internal migration and for that of interstate migration. But justice is scarcely done to the actual conditions if in both cases the position is ascribed exclusively to the economic crisis.

The *arrest of the internal migration* is in the first place a consequence of the economic crisis. The unemployment in towns and industrial centres continues to render it more difficult to make a living in the towns and the prospect of an improvement of living conditions through migration becomes more illusory. In certain countries the situation of the labour market in the towns contributed to render difficult migration from the rural districts, the relief agencies for the unemployed in some cases pronouncing against it. In this way probably many a one has been deterred from migration and forced to content himself with the little he has on the land. Too great an importance, however, should not be attached to these measures, especially as ultimately it is a question of the consequences of the crisis, which must disappear with the crisis itself.

A question which is difficult to answer is how far the present trend of internal migration, especially the "flight from town" in its true sense, is to be attributed to moral and psychological causes. There is talk of weariness of the great town

and recoil from its conditions. The large town however has in the first place lost its power of attraction, because the belief is gone in the renewal of these earlier times when the large town offered work and food to all. It seems to those who desire to go back to the land beyond belief that the great mass of the unemployed could ever one day return to take their former places in industry, trade and commerce. Again for those who came in recent years only to the town the return to the land presents no difficulty if they are still unmarried and have relatives in the country.

If it is possible to speak of a "weariness" of the great towns, this would occur primarily among the younger people. Undoubtedly it is among them that the strongest reaction against the large town and a desire for natural conditions and closer contact with the land are noticeable. They rebel not unfrequently against the monstrous mechanisation of industrial work and the general conditions of life in the great towns, and they are ready and willing to take up the formerly despised rural and agricultural work. In many cases there also entered the idea that it would be easy to find employment on the land. When, however, this opinion proved to be mistaken, the migration from the town in all countries fell much below anticipations.

The transformation in the trend of internal migration was especially noticeable in the countries, such as Germany and the United States; in which there had been previously a rapid process of industrialisation. There is now a widespread opinion that this phenomenon is a reaction against the earlier too hastily achieved industrialisation and over-industrialisation, whereby the balance in the distribution of population between town and country, between the agricultural and the non-agricultural callings, was disturbed and with it the whole economic balance was upset.

The causes of the position of the interstate migration are at the present time also primarily of the economic order. The general crisis has completely crippled the absorption capacity of the immigration countries. The first limitations of immigration, however, appeared long before the onset of the crisis.

This is true of the United States in the first place. When this country by a series of immigration laws reduced immigration to a low percentage of the pre-war immigration, non-economic motives played the larger part. Among the economic factors were the reduced extent of the tracts of still unoccupied land and the difference existing between the wages in the United States and those paid in the emigration countries in question. Reasons of national and social policy had even more weight. The crisis was of course a contributory factor to the latest developments in this respect.

The limitation of immigration by the United States could not be compensated by an increase in immigration into other countries for the simple reason that the immigration into the United States had been larger than that into all the other large immigration countries taken together. The reasons which led to the restriction of immigration by other countries were partly economic, partly political. The attitude of organised labour to immigration has played a considerable part in this restrictive policy.

THE EFFECTS OF THE PRESENT POSITION OF THE MIGRATION MOVEMENT.

The first visible consequence of the interruption of the migration movement is the increase of the proportion of the rural population. Everywhere it was the rural and in particular the agricultural population which accounted for the main part of the increase in population. At the present time, there is not sufficient nor indeed any outlet for this surplus, neither to the towns nor, in the case of the countries that were formerly emigration countries, abroad.

On the land itself only a small part of the increase of population could be accommodated. Openings for employment in agriculture were soon exhausted. The present state of affairs illustrates as nothing else could show narrow are the limits of the population capacity of agriculture in given conditions. On the family farms the wage-earning labour was replaced to an increasing extent by members of the family, and unemployment spread rapidly in the country. Owing to its special character it is difficult to obtain a statistical estimate; in particular the "latent" unemployment on the family farms is not measurable. In consequence of the oversupply of labour the wages of farm labour in some localities fell far below the pre-war rate. Most serious of all is the overpopulation on the areas of small farm holdings.

In these circumstances it is easily intelligible that redirection of the urban unemployed on to the land is fraught with difficulties. In many countries, alike agricultural or industrial, attempts are being made both by private and by public enterprise, but proposals and measures to which effect is actually given alike seem for the most part to have the character of emergency measures. They do not imply a real removal of difficulties since they offer to the returned migrants no new possibilities of existence. Agricultural settlement would be a real solution, but practicable only to a very limited extent in European countries. Provision of the necessary funds would be quite feasible, and settlement on primitive lines might follow. Land available for such a purpose is however limited in area. Undoubtedly settlement is a valuable aid to the reduction of unemployment, and on that account it has everywhere attained importance, but it can provide only for a small fraction of the unemployed of the towns, and will have to be on the whole confined to the provision of accommodation, and that partial only, for the rural surplus population.

In recognition of this fact, in countries where industrial unemployment has attained very great dimensions, another movement has assumed importance, *viz.*, suburban settlement. The measures in Germany call for special mention. In its present form, suburban settlement belongs for the most part to the sphere of housing policy. Primarily it provides unemployed persons and short time workers with cheap houses. The plots assigned should not accordingly be so large as to have any prejudicial effect on the commercial utilisation of land, in particular on commercial fruit and vegetable growing. Suburban settlement will not thus create the means for earning an independent livelihood. The cheap dwelling and the opportunity of growing some part of the food requisites mean

a real economic relief for the unemployed. Hence suburban settlement is regarded by many, and not without reason, as merely an emergency measure to be carried through with the minimum of funds, and in such a way that later on a reinstatement of workers in the production process may follow with a minimum of loss. Hopes are thus entertained of a revival of the economic situation with re-inclusion of those now unemployed. Along with suburban settlement the allotment garden movement has been revived. A more rapid success may attend this assignment of small uncultivated plots and less expense may be involved, but even less than suburban settlement does it involve a satisfactory solution.

The oversupply of agricultural labour and the abrupt fall of wages has in some agricultural areas brought human labour once more into competition with mechanical aids to farming. Any further mechanisation will proceed within narrower limits. The sale of farm machines has quite noticeably decreased in all countries. It is readily intelligible that on a number of farms machines and implements remain unrepaired as it is considered cheaper to utilise human labour instead. The view of those who speak of a return to a primitive, or less mechanised economy, is accordingly by no means unjustified.

The return to the land, or quite generally, the diminution of the urban proportion of the population, involves a contraction of the market for agricultural products. Where, as in the United States of America, the numbers of the urban and industrial workers who returned to the land run into millions, the marketing possibilities for agricultural products have obviously been reduced. The market situation for these products must become even more unfavourable if the returned migrants do not confine themselves to the production of food for their own requirements, but also proceed themselves to supplying the market, a development which in the long run is almost inevitable. There is a parallel in the suburban settlement in Germany. Up to the present the extent of this has been negligible as compared with the unemployment. The production from the small suburban settlements and from the allotment gardens can have in the first instance no effect on the marketing of agricultural or garden produce, since for the most part this production serves merely to meet the requirements not previously satisfied owing to want of purchasing power. If this form of settlement widens its scope, as it inevitably will if the crisis continues, it cannot fail to have a strong influence on the marketing situation for agricultural and garden products. Every extension, however, of the suburban settlement will thereby simultaneously involve a step forward in the endeavour for autarchy, and must contribute to a further limitation of the importation of food supplies. The same considerations apply to suburban settlement taken as a preliminary for the transition to short time work. If the wage reductions necessarily involved in short time work are to be made tolerable to the workers, they must have the opportunity of producing some part of their food requirements themselves. Undoubtedly it is a matter of congratulation if by this means numbers of the unemployed regain occupation and a purpose in life, and with that a healthful occupation for their leisure. The produce of a small holding may however seem to be poor compensation for the former remuneration of work. In the establishment of suburban or other form of small settlement the present

situation on the European areas of small holdings should be kept more closely in view, and thereby many unsuitable measures would undoubtedly be avoided.

The course taken by the situation in general will also have a disturbing effect on the volume of marketing of industrial products. The migrants from the town and those who have never left the land will only rarely have the same purchasing power as formerly, and their standard of life must fall. Even though the contraction of the purchasing power is not everywhere so marked as in the Eastern European countries and other European agricultural regions, it will none the less have important effect on the trade in industrial products whether on the national markets or still more on the world market.

The present migration trend will in the long run lead to a severe pressure on present rural conditions of ownership, and once more it is the densely populated areas of small holdings where this pressure will be at its worst leading finally to further sub-division of land with all its attendant evils.

Quite generally it must be noted that the arrest of the migration movement in all countries has led to an intensification of those branches of economic activity which by utilisation of the marketing facilities still available on the home market can increase their degree of employment or can offer the opportunity for a more or less independent existence. At the same time foreign competition is kept down by tariffs and a number of other measures. In industrial countries with an extensive importation of food requirements the return to the land or the impossibility of migration to the town has necessarily led to increased development of agriculture. Since agriculture is now the only branch of economic activity which still offers possibilities of extension and of marketing, it has been encouraged and protected in every possible way. Hence the phrase "ruralisation" (*Reagrarisierung*), has become a good description of the present development of the industrial countries. To a certain extent the restoration of a fresh relation between agricultural and non-agricultural production, rural and urban population may have the effect of bringing about a relief and involving desirable consequences. On the whole the limits are already traced for these countries, unless the ultimate result is to be a drop in the standard of living

The conditions in the agricultural countries present more difficulties. The natural consequences for them would be a further development of industry. The difficulties in the way of industrialisation are at present invincible. Even if the financing could be arranged, there would be no market available, since the world market is already overglutted with industrial products and the purchasing power of the poverty-stricken farm population is insufficient.

Apart from further consideration of details it is sufficiently clear that without the restriction of the interstate emigration the acute stage of the economic difficulties would not have been reached. In fact the view that the restriction of emigration is one of the main causes of the crisis admits of proof on valid grounds. So violent a transformation on the home market would have come about in very few lands, if the countries had not been forced constantly to find new and in part only unremunerative openings for their population. On the contrary in the pre-war time the migration movement formed one of the strongest forces affecting exchange of money and commodities. Freedom of

migration in connection with the free exchange of money and commodities always led to an equalisation and equilibrium between the industrial and agricultural lands, the immigration and emigration countries and stimulated the economic activity of all countries. To-day instead are seen on, the one hand, lands with the menace of over population and, on the other, lands which are able only partially to utilise their economic possibilities.

More than once the phrase "opening of new markets" has been employed at international Conferences. So long as the implied demand for the creation of new emigration facilities is not taken into serious consideration, all efforts at restoration of an unfettered international exchange of money and commodities can be of little effect.

CANADA.

While it does not appear that any pronounced back-to-the-land movement has taken place spontaneously in Canada, much has been done by the Dominion Government and by the Provincial Governments to settle unemployed persons on the land. Several provinces have also taken steps to provide garden allotments for unemployed workers.

A scheme for the settlement of unemployed persons on the land was proposed in 1930 by the Hon. Wesley A. Gordon, Dominion Minister of Immigration and Colonization and adopted after discussion with the premiers of the different provinces, who unanimously approved of the proposal. Mr. Gordon's programme, which took the place of the former programme of inviting immigration from other countries, was to settle on farms families in Canadian cities who had originally come from the country and were either unemployed or in danger of unemployment, and also to place in farm labour unemployed single men. The scheme was carried out with the collaboration of the Colonization Departments of the Canadian National Railways and the Canadian Pacific Railway.

No financial assistance was offered, so that the families to be settled on the land required to have at least enough money to establish themselves on the land. As, however, prices of farms were low and many could be bought on conditions not involving any immediate payment and as prices of stock and used equipment were also low, a few hundred dollars usually was sufficient.

Up to 30 September 1932, the three interests concerned were instrumental in placing on the land 9,493 families and in finding farm employment for 20,689 single men. On the basis of five persons to a family this is equivalent to the settlement on the land of 68,154 persons. These figures do not include the persons settled on the land under similar schemes by the provincial governments.

It was found however that there were many families willing to return to the land but not in possession of sufficient capital to do so under Mr. Gordon's scheme. In May 1932 the Dominion Government therefore decided to extend the scheme by offering to bear a portion of the cost of settlement on the land of selected families, provided the province and municipality concerned were prepared to make a similar contribution.

The agreement offered to each of the provincial governments, and accepted by all except one, was to the effect that the Dominion Government would contribute one third of an amount not to exceed \$600 per family for the purpose of placing on the land families who would otherwise be in receipt of direct relief, the remaining two thirds of the expenditure to be contributed by the province and municipality concerned as might be decided between them. The Dominion Government contribution was to be regarded as a non-recoverable expenditure. The total expenditure on behalf of any one family during the first year was not to exceed \$500 for all purposes inclusive of subsistence and establishment, at least \$100 being withheld to provide subsistence during the second year.

In the agreements with the different provinces the number of families to be settled on the land in 1933 was specified.

The total number of families was 6,926 and the total expenditure for which provision was made was \$ 4,157,025, the Dominion's proportion being \$ 1,385,675.

Full particulars of the special settlement schemes of the provincial governments are not available, but it may be noted that in the Province of Quebec 3,678 families and 985 single men were settled on the land in 1932 under the provisions of the Act to Promote the Return to the Land passed by the provincial legislature in that year. Of these 329 families and 208 single men returned from the United States to take up land in the province. In Nova Scotia a scheme has been set on foot for the settlement on the land of unemployed coal miners who have had experience in farming. The carrying out of the scheme is entrusted to a Board of five persons appointed by the Lieutenant-Governor in Council under the terms of a special Act of the provincial legislature.

As showing that there is a spontaneous demand for land for settlement, in spite of the low prices of agricultural products, it is interesting to note that since the Peace River Block in north-eastern British Columbia was thrown open to settlement in August 1930, 300,000 acres have been taken up by 2,500 families.

The provision of garden allotments is perhaps most actively carried on in the Province of Ontario. Reports furnished by representatives of the provincial Department of Labour in 24 municipalities showed that in 21 of those municipalities schemes were in operation under which between 7,500 and 8,500 men were cultivating garden plots. Some civic authorities insist that unemployed men receiving direct relief should, if possible, cultivate such plots. The assistance given varies from merely providing the land to completely planting the garden before handing it over to be cared for and cultivated.

In Manitoba urban municipalities allot vacant city lots to citizens who are unemployed and who will undertake the gardening of them. It has been made a condition that every married man in receipt of unemployment relief must cultivate a garden. Seeds are supplied gratuitously.

In Alberta the various cities have made land for gardening available to unemployed persons in receipt of relief; in Calgary and Edmonton in 1932 about 2,000 unemployed persons were cultivating vacant lots, while the same two cities were directly cultivating large plots of land, and having the work done

by men in receipt of relief; the vegetables grown on these plots were used during the winter for relief purposes.

In Saskatchewan, also, the municipal governments encourage workers to undertake gardening; in some instances they plough and harrow the land before handing it over to the worker and also supply seeds.

In the other provinces private organisations have provided allotments, but no official schemes appear to be in operation.

GERMANY.

The immense advance in industrial activity, which was accomplished in Germany during the decades that preceded the war, was accompanied by an increasing urbanisation and concentration of the population in defined industrial areas. During the war this movement was temporarily interrupted, but shortly after the end of the inflation it recommenced. The proportion of the urban population (*i. e.*, the population of communes with 2,000 and over inhabitants) to the total population increased from a full third in 1870 to nearly two thirds in 1925. Almost the entire natural increase in the population was absorbed by the towns and larger communes, so that the absolute height of the rural population remained unaltered. The larger the commune, the higher, generally speaking, was the rate of increase. The increase in population for the fifty years 1875 to 1925, an increase of 25.3 million, was distributed as follows among the size classes of communes (1).

Communes with under 2,000 inhabitants	219,607	or	0.9 %
" " 2,000 up to less than 5,000 inhabitants.	1,967,534		7.8 %
" " 5,000 " 20,000 "	3,588,973		14.2 %
" " 20,000 " 100,000 "	5,482,499		21.7 %
" " 100,000 and over "	14,045,395		55.4 %
	<hr/>		
	25,304,000	or	100 %
	<hr/>		

The effect of the development of industrial activity was not only the absorption of the natural increase of the population, but also the transformation of Germany from an emigration into an immigration country.

The losses by emigration were in Germany as follows for the periods indicated :

1871-1880	694,000	persons
1881-1890	1,319,000	"
1891-1900	364,000	"
1901-1910	5,000	"

(1) Statistik des Deutschen Reiches, Band 101, Berlin 1930, S. 521.

Foreign labour, and especially seasonal labour, was employed to a constantly increasing extent in Germany since the beginning of the century. In 1910 the number of such persons was over one million.

Although there was no diminution in the rural population in respect of Germany as a whole, decreases occurred in many small administrative areas, and in purely agricultural districts the losses by migration were quite considerable. These losses reached a maximum in the agricultural province of East Prussia. In 1910 the number of inhabitants of this province approximately was 2,150,000 with a population density of 58.05 the square kilometre, but in the period from 1870 to 1910 the loss through migration was about 700,000, or 17,500 yearly. In the period from 1900 to 1910 this loss amounted to 193,500 persons. The next largest losses for the same cause during the period 1900 to 1910 were those of the province of Posen, 188,000, and West Prussia, 152,000.

The movement from country to town was naturally accompanied by a continuous decline in the ratio of the rural to the total population. Whereas during the period 1882 to 1925 the number of persons engaged in farming still showed some slight increase, there was a decline in the number of those definitely following the calling of agriculture, taking together those actively engaged in farming as their main occupation and members of their families not following independent occupations. The ratio of this group to the total population, calculated on the basis of the present territorial area of Germany fell from 40 per cent. in 1882 to 33.6 per cent. in 1895, to 27.1 per cent. in 1907, and to 23.0 per cent. in 1925.

The exodus from the land was almost completely interrupted by the war. During the first post-war years and during the inflation period there was even from time to time a not inconsiderable return movement to the country. As soon, however, as the inflation came to an end and the work of economic reconstruction had begun, that is to say from 1924 onwards, the movement from the country to the town and from agricultural to the non-agricultural occupations assumed larger proportions. The extent of the movement for the years after the inflation may best be traced from the side of the increase in the population of the towns and more especially the large towns. On the basis of the notifications to the authorities of arrivals and departures there was shown to be, taking the large towns of Germany together and over the period 1924 to 1929, a gain by migration of 790,000 persons in all. The largest such gain was that of Berlin with about 450,000 persons. During that period several large towns, especially those of the industrial districts of West Germany undoubtedly experienced losses by migration, but these were not particularly large and were for the most part the consequences of local population shifts.

A general re-orientation of the migration movement first appeared in 1930. Of the fifty largest towns of Germany in 1930 only 16 showed gains by migration and those diminished, while all large towns taken together lost by migration 60,000 persons or 2.9 per thousand of their population. The 47 towns with from 50,000 to 100,000 inhabitants showed a total loss by migration in the same time amounting to 1.9 per thousand.

In 1931 the losses by migration of the towns were larger. Out of the 50 largest towns only 11 had a gain from migration of 7,000 persons in all, while the

remaining 39, lost 109,000 persons in this way, so that the large towns taken together lost by migration 102,000 persons or 5.2 per 1000 of their population.

In the group of the 47 towns with 50,000 to 100,000 inhabitants, 25 towns had losses from migrations, the towns of this group as a whole losing approximately 6,000 persons or 2.3 per thousand of their aggregate population by migration.

The year 1932 brought a decline in the losses by migration. Of the 50 large towns only 35 showed losses by migration, while the total loss by migration of these towns amounted to 78,786 persons or 4 per thousand of their population. The towns from 20,000 to 100,000 inhabitants even showed in that year a gain from migration of 10,000 persons. Losses from migration considerably higher in 1932 than in 1931 appear only for Berlin and Hamburg. A decline in the losses from migration was especially noticeable in the industrial towns of Western Germany, some of which had already shown such losses for six or more years. The following table gives information as to the progress of the losses through migration in the two towns mentioned and in some of the industrial towns of Western Germany:

	Population on 31 Dec 1931 in 1000	Loss by migration — Gain by migration — per thousand of population			
		1928-29	1930	1931	1932
Berlin	4,288	+ 17.1	— 2.0	— 7.7	— 11.6
Hamburg	1,137	+ 11.5	— 1.3	— 9.3	— 12.0
Dortmund	533	— 3.2	— 13.6	— 8.3	— 5.7
Düsseldorf	473	— 2.8	— 10.4	— 10.3	— 1.6
Duisburg-Hamborn	441	— 2.1	— 12.2	— 13.9	— 7.5
Gelsenkirchen	335	— 15.6	— 20.3	— 16.0	— 7.2
Bochum	320	— 13.0	— 10.8	— 14.3	— 4.1
Oberhausen	194	— 4.7	— 12.5	— 6.9	— 5.2
Largest 50 large towns taken together	19,598	+ 6.6	— 2.9	— 5.1	— 4.0
47 towns from 50 to 100,000 inhabitants	3,495	+ 2.4	— 1.9	— 2.3	+ 1.7

The decline in the losses from migration of the large towns in 1932 in no way, however, indicates that the so-called flight from the town is already reaching an end and that a further change of direction of migration has set in. The much more significant fact in relation to the migration movement of the year 1932 is that the figure of the removals from the towns declined in that year more sharply than the figure of the accessions. The following table shows the course of the movements for the 50 large towns:

	Entered	Left	Loss (—, or gain (+))
1929	1,767,000	1,672,000	+ 95,000
1930	1,613,000	1,670,000	— 57,000
1931	1,368,000	1,470,000	— 102,000
1932	1,245,481	1,324,267	— 79,000

A general retardation of the migration movement is accordingly to be observed. The prospects of effecting an improvement in the conditions of existence by means of migration have become increasingly slender. In addition various measures for the relief of the urban unemployed, such as suburban settlement and promotion of allotment gardens, have resulted in a shrinkage of the migration from the town. The tendency of the movement remains however the same. The flight from the towns would assume immense proportions if a plot of land were to be had in the country without further ceremony or if funds were no longer available for keeping the allowances made to the urban unemployed up to the present level.

It is hard to say whether the motives impelling human beings to leave the towns are more economic or more psychological. Undoubtedly there is a strong interaction of motive, but possibly apart from the economic pressure of the present crisis the large towns would not have lost their attractive power. It is readily intelligible that with the steady increase in unemployment the workless in the towns have gradually lost all hope of reinstatement in the processes of industry, and instead begin to direct their thoughts towards the land, with the idea of finding a fresh object in life through the cultivation of however small a plot of ground, and of securing some part of the necessities of life by their own labour. The hope is cherished that on the land there is always some kind of opening for work to be found, and that the absolute essentials are easier to come by than in the town. The unemployment figures according to the Employment Bureaus amounted to the following totals in average for each year :

1928	1,391,000 persons
1929	1,898,600 »
1930	3,075,600 »
1931	4,519,700 »
1932	5,602,700 »

The decline in the number of persons returning to the country in spite of the undoubtedly widespread discontent in the large towns is proof of the difficulties involved in a return to the land. It is still comparatively easy for the younger people to find some kind of employment on the land, especially if they are country-bred and unmarried. It may be safely assumed that the majority of those who have returned consist of young unmarried persons, who during the previous years came the town from the country and now in consequence of unemployment are once more returning to their relatives.

Possibilities for the return of other groups might be found in the first place in agricultural settlement. In the *International Review of Agriculture* for September 1932 a brief survey was given of the present situation of rural land settlement in Germany, so that it is unnecessary to give any detailed account here. Conditions prevailing at the present time are in many respects favourable to land settlement. The land required can be obtained on the open market at low prices and there is no need to have recourse to expropriation. There is a superabund-

ance of suitable settlers, who are ready to face privations in order to make sure of a living however modest, so that no large funds are required for financing the settlement.

If for these reasons unduly high hopes have not seldom been placed on land settlement as a means of combatting unemployment, it is because it is too often forgotten that the possibilities of settlement are limited and that only a comparatively small number of persons can be so placed. In the last few years some 9,000 new holdings have been formed yearly. The number of the urban unemployed who are accommodated within the limits of rural settlement will always remain very small, since the preponderant element among the settlers will be drawn as before from the groups of the younger sons of farmers and farm workers and from other sections of the rural population.

As soon as the workless man in the town was forced to recognise that the return to the land was not so simple a matter and that for the most part that there was no course open other than to remain in the town, he made it his endeavour at least to obtain a small piece of land on the borders of the town so as to secure by its cultivation some occupation and some part of the necessary food supplies. The longing for life on the land and in natural surroundings was awakened.

The movement towards the town borders gradually increased so that the Government found itself obliged to intervene with a view to encouragement and regulation. By an Emergency Order of 6 October 1931 a special *Reichskommissar* was appointed with fairly extensive powers for the establishment of small suburban settlements and the provision of allotment gardens. At present suburban settlement and the provision of allotments is the province of the Ministry of Labour. According to the directives laid down by the Ministry the carrying out of suburban settlement lies in the hands of the Provinces, the communes and unions of communes, from which bodies however it may be transferred to housing and settlement undertakings of public utility.

Amortisable loans at a low rate of interest are granted by the *Reich* on application, if the size, nature of the soil and equipment of the settlement is such as really to make easy the provision of a subsistence for the settler's family. The individual blocks should not as a rule be under 600 square metres, nor over 5,000. The settlers and their families must be persons suited to the work of farming. Unemployed persons and workers on short time are eligible as settlers, if they have taken part in the preparation of the tract of land for settlement; special consideration is to be given to large families. Land required may if necessary be leased to settlers from the property of local corporate bodies or assigned in ownership with long term amortisation of the purchase price.

As the small plots cannot in themselves supply subsistence, care is to be taken that the plots are so situated that the settlers can follow their own main occupation or can resume it on any improvement in the economic situation. Suburban settlement is to receive more special encouragement in the medium-sized or small towns, so as to bring about at the same time the desired thinning of the population of the large towns and industrial centres. The buildings must

be carried out in the simplest form and with the simplest fittings and so arranged as to facilitate collaboration between the settlers.

Cash expenses for the erection of houses and equipment of the single plots must not exceed 3 000 marks exclusive of the purchase price of the land. The *Reich* grants a loan per plot up to the maximum of 3,000 marks. Apart from suburban settlement the formation of allotment gardens for the unemployed is also encouraged by the *Reich* by means of loans up to 70 marks per garden. The required plots are in the same way provided in the first place out of the property of public bodies. Up to the beginning of 1933 approximately 25,000 small settlers' holdings and 78,000 allotment gardens were established for unemployed persons by means of *Reich* subsidies. At the beginning of February 1933 additional funds amounting to 50 million marks were allocated for the promotion of small settlements and the layout of allotment gardens.

Much has been said of the importance and of the advantages and disadvantages of the suburban settlements. Suburban settlement is generally welcomed because it affords relief from the moral as well as the economic depression for the workless and their families. Capacities that would otherwise lie idle are utilised in the work of building of a dwelling and in the cultivation of a small plot, with the result that eventually there is less charge on the public relief funds. The workless man regains his hope for a better future and his resistance to trade fluctuations is strengthened. Another argument in favour of suburban settlement is advanced by those who see in it the possibility of arriving at a general shortening of the working day since the corresponding reduction of wages is made possible if the worker has already a house of his own and garden produce available. The relieving of the congestion of the large towns and the linking of the town worker with the soil are among the advantages to be welcomed in this type of settlement.

On the other hand in its present form there is too much of the emergency measure about the suburban settlement. A family cannot live independently on the small plots of land which are assigned. It is not proposed to assign larger plots, as only very limited areas are available in the suburbs, especially taking into consideration the large numbers of the urban unemployed. Nor is it proposed to make settlements at greater distances from the towns, where transport and communication difficulties would prevent the short time worker from following his main occupation and would preclude the possibility of any future reinstatement of the workless in the industrial process.

The plot assigned is thus to serve merely for self supply and to meet food requirements before unsatisfied; production for the market is to be as far as possible checked, so as to avoid interference with the commercial growing of fruit and vegetables. These and similar provisions of the instructions published by the Minister of Labour (*Reichsarbeitsminister*) show clearly, that the encouragement of suburban settlement is prompted by the view that the national economy will sooner or later be in the position to reinstate those now unemployed within the industrial process. This is no longer the belief of the great number of those who wish to return to the land. To them it seems incredible that with all the extent of the mechanisation and rationalisation the same number of

human beings can again find occupation. Any judgment of the suburban settlement depends accordingly in great part on the view that each individual holds as to the future demand for labour and the planning of working time in industry and trade.

Still another point of view in of importance. Suburban settlement involves a retention of population in the town and the industrial centres, justified, it is argued, in view of future population developments. By the decline in the excess of births over deaths, it is conjectured, the growth of population of the large towns would be affected within measurable time in two ways. In the first place even now in the majority of the large or medium-sized towns the excess of births over deaths is either non-existent or very small. The proportions of living births to deaths is bound to become still more unfavourable, if in consequence of the present predominance of the higher age groups the number of births diminish and that of deaths increase from a definite point of time onwards. On the other hand, this more marked decline in the natural increase of population, and the resulting stationary condition or in many cases even decline in the town population, could not be compensated for, as usual, by the rural excess of births over deaths, since that too would have suffered diminution. Such a development of the population would, it is anticipated, relieve the situation of the town labour market. This view however does not remain unopposed, in fact there are cogent arguments brought against it. Moreover the trend of population development is not regarded as being completely uniform. It is for example conceivable that an improvement in the economic situation would lead to a higher birthrate; the present birthrate is undoubtedly conditioned by economic considerations.

State encouragement is also given to the movement towards the land by the industrial conscription, the carrying out of improvements and cultivation of waste lands. A further measure, the purpose of which was to bring the young people into closer contact with agriculture was the "Landhilfe" or land subsidy, instituted on 1 March 1933. The Labour Bureaus were thereby empowered up to 30 June 1934 to grant a premium to the owners of family farms of not more than 40 hectares in extent, provided that they take on labourers beyond the number employed in the previous year. The origin of the introduction of this premium was that on many family farms the number of wage-earning workers employed was much reduced owing to the pressure of the crisis, so that the members of the family and in particular the farm women were overburdened with work. The subsidy may amount to 25 marks for male workers, and to 20 marks for females. The registration of unemployed persons for "Landhilfe" is optional.

In the foregoing statement the recent tendency of migration is treated mainly from the point of view of the towns. This however by no means exhausts the question of the so-called flight from the town. Far more important than the migration from the towns — both in actual numbers and in consequences — is the interruption of and difficulty attendant on the migration from country to town. In contrast to earlier practice it is today the small towns and rural communes which absorb the natural increase of the population. This is also evident from

the growth of population of these towns. In the following groups of towns the population figures for 1932 may be shown thus :

		In 1000 inhabitants	
		1-1-1932	31-12-1932
Communes with over 100,000 inhabitants		19,598.5	19,539.3
» » 50,000 to 100,000 inhabitants		3,495.3	3,516.0
» » 30,000 to 50,000 » 		2,763.0	2,785.0
» » 15,000 to 10,000 » 		3,429.0	3,453.0
		29,285.8	29,293.3

The population of the rural areas which has so long remained at a static point now begins to increase. Areas from which there was formerly emigration now become also areas of immigration. This statement holds for example for the province of East Prussia at an earlier date known as an area of emigration. In the case of East Prussia this development can be noted with precision, since a direct reckoning of the immigrations can be made from the official notifications of entering or leaving the province. The loss by emigration of East Prussia, which in the last decade before the war amounted to 19,000 to 20,000 persons yearly, and in 1929 had risen to 20,500, fell in 1930 to 4,119, and for 1931 there was noted on the contrary a gain by immigration of 3,900 persons. This phenomenon was mainly to be attributed to the return to the Province of workers dismissed from Berlin and the industrial region of the Rhine provinces and Westphalia. Whereas in East Prussia the pressure exercised on the labour market by the immigration could be counteracted by the new rural land settlement, this was not the case in other rural areas. In them the prospects of employment are quite as unfavourable as in the towns. In the areas of family farming the younger members of the family are crowded on the farms. The first consequence of this is the dismissal of wage-earning workers, intensifying the already existing unemployment. The areas of small holdings, which tend in normal times to be overpopulated, are especially affected by the present conditions.

However much the new trend of migration is still disputed, its effects are already noticeable on economic policy. The impulse to find room for more workers in agriculture has inevitably led to a stronger emphasis being placed on agriculture, with a thereby stronger support for the attempts to secure agricultural autarchy. "Reagrarisierung" (ruralisation) is no longer a mere catchword, and recent measures have as their object the definite and systematic broadening of the agricultural basis.

ITALY.

The new agricultural and demographic policy of Italy is based on two considerations of the first importance: that of rendering the country independent of foreign food supplies, and that of providing for the means of existence for a population of which the average annual increase amounts to 400,000 persons and

which has no longer, as formerly, an outlet in emigration. The "Wheat Campaign" or *Battaglia del Grano* opened in 1925, and carried on with results entirely satisfactory, is the solution of the first problem, while the second is met by the integral land reclamation or *bonifica integrale*, the regulation of which was enacted by the Law of 24 December 1928, No. 3134, and by succeeding measures, consolidated and completed by the Decree Royal of 13 February 1933, No. 215.

When the former policy of encouraging emigration by every means direct and indirect, was abandoned in favour of the retention in the country of the mass of surplus workers, the problem presented itself of forming within Italy itself the possibilities of work and existence. This was the origin of the scheme of integral land reclamation, the purpose of which is to secure the greatest possible utilisation of the lands, by the prosecution of carefully co-ordinated plans for drainage and irrigation, road construction, aqueducts, rural buildings, settlers' dwellings, etc.

In any rapid survey of the movement of Italian emigration, certain different phases will be distinguished. For the period 1876 to 1900, emigration fluctuates round an annual average figure of 210,000 persons. Between 1901 and 1913, it increased very rapidly and reached an annual average of 627,000 emigrants. During the war, a decrease took place, for obvious reasons, and an annual average of 168,000 persons was maintained. Immediately after the armistice the increase in the demand for labour to repair the war damage brought about a sudden rise in the number of emigrants to 253,000 in 1919 and to 614,000 in 1920. The closing of a number of labour markets caused a shrinkage, reducing emigration in 1921 to 201,000 persons. In the following years up to 1924, there was again a rise in the figures, up to an average of 345,000 persons yearly. After 1924 the total immediately fell, and in 1931 was as low as 166,000, and in 1932 still lower, or 83,309 persons only.

Taking the average emigration for the period 1922-24 as 100, the index numbers for the following periods become : 74 for 1925-27 ; 56 for 1928-30 ; 48 for 1931, and 24 for 1932.

Now from a study of the systems for securing employment for surplus workers it has been recognised that if this object is to be attained it is not sufficient merely to promote intensive cultivation, but it is essential to supplement this by a balanced programme of land settlement. Such a programme has in fact been drawn up and special organisations have been established to carry it out.

It is evident that a very delicate and difficult task is involved, *viz.*, to establish centres not merely of economic but also of social life, with all the equipment and public services essential to the communities, churches, schools, roads and communications, sanitary aid, etc. Moreover an endeavour should be made to establish between human beings and the land ties which are not temporary but lasting, not material only but so to speak spiritual, since apart from such forging of bonds there is risk of non-fulfilment of the objects desired.

The Ministry of Agriculture was already concerned in the organisation, on the lines indicated, of the land settlement work in the Roman Campagna, and throughout the country work of this nature was being done by the National Institute of Service Men (*Opera Nazionale per i Combattenti*).

The need however was felt of a new organisation specially instituted for the purpose, the activity of which should be linked with that of the institutions already operating. This new organisation was formed in 1926 under the title of "Permanent Committee for Internal Migrations" and was subsequently transformed, as will be seen, into a "Commissariat for Internal Migrations and Home Colonisation." This latter represents a typical organisation appointed to regulate the transfer of the excess number of agricultural workers from one part of the country to another, thus relieving the pressure of population in certain districts and directing the masses towards other regions needing labour for their development; in other words the institution is a distributor of labour strength.

It is for example well known that in the Po Valley and especially, in the provinces of Rovigo and Ferrara, there is an excess of farm labourers who cannot find work and that accordingly the congestion of the labour market depresses the economic and social conditions of the whole group of workers in this zone. On the other hand in the Roman Campagna, in Sardinia and in the colonies a shortage of labour is noticeable and in consequence vast tracts of land cannot be brought under cultivation, although capable, given the right type of cultivation, of supporting a farm population, and of making at the same time an addition to the national income. Hence in 1926 the duty was assigned to the former Permanent Committee for Internal Migrations "of studying and proposing the measures required for directing the current of migration from the provinces of the Kingdom with an excess population to the less populous provinces of the South and of the Islands which are capable of agricultural and industrial production beyond the present rate." In 1928, this Committee from being an organ for enquiry only became an executive body. In 1931 (Law of 9 April, No. 358) it was transformed into the Commissariat for Internal Migrations and Home Colonisation in direct subordination to the Head of the Government and so continues to the present day.

From the first in the view of this body the conception of land settlement has been that of a problem important not merely from the economic and political point of view; but also and even more so from the social standpoint, inasmuch as the transfer of families from one zone to another and the formation of new centres serve, it may be remarked, not merely to relieve the pressure of population in certain provinces and to bring other areas under remunerative cultivation, but nearly always, also to build up new activities and to stimulate those latent whether in the new arrivals or in the local populations.

Special attention is consequently attached to the selection of families to be transferred into the zones to be populated. Such families must positively possess the qualities of health and technical equipment such as will enable them to meet in full the requirements. For this purpose the Commissariat has instituted an index, which is kept up to date, of the families in each province who are prepared to emigrate, such showing the composition of each family, their abilities, their moral and political qualities, etc. Each time moreover that a removal is to be made, all the particulars are directly verified by a medical inspector and an agricultural expert, with the object of making a careful selection of settlers.

The most recent and most striking example is that of the 500 families transferred, on the initiative of the Commissariat, from the Venetian provinces into the new commune of Littoria. This transfer was made as the result of an examination on the spot of 1820 families as well as the inspection in full detail of all the members of 704 families. Each family placed becomes the object of incessant care. An index card is kept showing in addition to the civil status of all members, their work aptitudes, their past and present occupations, also the changes taking place in the family group after the arrival in the new locality, births, deaths, marriages, so that in this way there is always available full material for observation and enquiry.

The most interesting transfers from the demographic and home colonisation standpoints, and those for which complex problems of organisation of work and assistance arise, are the transfers of families definitely quitting their original domicile to establish themselves in other region or colonies. The Commissariat however also deals with temporary migrations from one province to another for reasons of work.

The total number of persons who have migrated from one commune to another in Italy in 1931 was 313,068. Out of these, 247,153, or 78.9 per cent., migrated for purposes of agricultural work, and 65,915, or 21.1 per cent., for so-called industrial occupation. Of the removals occasioned by agricultural work, 78.2 per cent. were for the weeding and gathering of rice and for the harvesting and threshing of wheat. The greater number of the migrations for so-called industrial work have been occasioned by the land reclamation operations and by road construction.

Grouped by the sexes, the number of the migrants included 229,241 men and 83,827 women.

The regions of largest migration have been those of the Adriatic seaboard and especially Venetia, Emilia, the Abruzzi, Molise and Apulia: those of greatest immigration, Piedmont, Lombardy, Latium and Lucania.

In 1931 there was a development more marked as compared with that of 1930 in regard to the type of migration of labour which most excites the public interest, that is to say the permanent migration closely connected with the schemes of integral land reclamation and home colonisation so energetically carried on at present in Italy. In this case it is no longer a matter of individuals migrating but of families, usually large families. Out of the 841 families, with 5650 members, including 3575 fit for work, who migrated in 1931, there were 182 who definitely made the removal for purposes of home colonisation. The majority of the migrants came from Venetia and it was Latium which absorbed the greater number of all immigrants.

In the period between 28 October 1931 and 28 October 1932 the Commissariat undertook the transfer of 53,280 agricultural workers as compared with 34,456 in the corresponding earlier period; provision was made for the definite establishment on the land, still within the period indicated, of 516 families with 4,644 members. To this last figure there must be added the 500 families of Littoria, the new rural commune which, after three months of existence, had a population of 7500 inhabitants.

Another striking example is that Mussolinia, in Sardinia, a village established and equipped, in accordance with moderna ideas, in the middle of this island and already in full swing of agricultural work.

At the present time, however, the most intense efforts of the Commissariat are directed toward the bringing under cultivation and peopling of the colonies of Tripolitania and Cirenaica, which are a natural outlet for the families of land workers.

For the purposes of land settlement in Cirenaica there has lately been set up (Decree-Law of 11 June 1932, No. 696) under the supervision of the Commissariat referred to and that of the Ministry of the Colonies, a special institution, the object of which is to "bring under cultivation by land settlement carried out by families from Italy the lands in Cirenaica which shall be assigned by the State as the property of the Colony." Before the end of October 1933, 150 families will leave Italy for this colony, under the care of this new institution. The Government of the colony will undertake the gradual execution of all the works within its competence, schools, churches, hospitals, etc., so that the civil organisation may keep pace with the development of the demographic settlement.

POLAND.

On 9 December 1931 the population of Poland was 32.1 million persons on a total area of 388,400 kilometres. According to the 1921 census, the distribution of the population by occupations was the following:

Agriculture, forestry, fishing	72.3 %
Industry	10.3 %
Trade and insurance business	3.7 %
Transport	1.8 %
Other occupations	11.9 %

According to the occupational grouping of the population, the proportion of town dwellers in the total population was very small and only slightly increased during the period from 1921 to 1931. In 1921 the population of the 636 towns of Poland was 25 per cent. and in 1931 it was 27 per cent. of the total population. Of these 636 towns 308 had under 5,000 inhabitants and 177 only 5,000 to 10,000 inhabitants.

In view of the markedly agrarian character of Poland, the present average density of about 85 per square kilometre is undoubtedly to be described as high. But this average density is exceeded not merely in the industrial districts, but also in the purely agricultural areas of the south and south-east. Over wide districts the agricultural population amounts to 100 and more the square kilometre, a figure which, given the same direction and the same intensity of the agricultural production, could scarcely be reached in other European countries. The significance of this figure is best seen from a comparison with

a country such as Denmark, which has often been quoted as a model example of intensity and progressive development of agriculture. In Denmark the density of the agricultural population per square kilometre of land under cultivation is 34 only.

This density of population in the rural areas of Poland is not a recent phenomenon, and even in pre-war times it was a source of serious anxiety. Further increase in the agricultural, or in any case in the rural, population was the natural result of a sub-division of property carried to irrational lengths on the occasion of succession, and of the want of other openings for employment or occupation. At that time, however, the inhabitants of these densely populated regions could find relief in emigration. From the parts of Poland which in that period belonged to Prussia there was a large emigration to the German industrial areas, while there was a similar migration from Galicia to the Austrian industrial areas, and from Russian Poland to Russia. Very great importance in pre-war times attached to the seasonal migration of agricultural labour from Congress Poland and Galicia into Germany and into the other parts of Austria-Hungary. Among the foreign seasonal labourers employed before the war in Germany there were thus over 350,000 Poles from Russian Poland and from Austria and from 80 to 90 thousand Ruthenians. Since about 1890 the emigration into overseas countries, notably the United States, had considerably increased. It is naturally extremely difficult to arrive at a precise estimate of the overseas emigration during that period from the regions now constituting Poland, but some idea of the extent of this movement may be formed from a study of the immigration statistics of the United States, which show that in the fiscal year 1912-13 there was an immigration of 174,000 persons of Polish origin. This extensive emigration had the result in the homelands not only of mitigating the competition for the limited range of employment, but also of bringing quite considerable sums to the communes whence emigration had taken place. Seasonal labourers were content in the foreign country with the barest food and lodging; their whole endeavour was to return home with the largest possible savings. From the other type of emigrants also savings flowed into the homeland, and many of them after the passage of years returned and brought their savings with them.

Emigration thus in no way resulted in a diminution of population, but rather tended to an increase, seeing that it certainly increased the population capacity of the country.

After the war emigration recommenced. In comparison with the pre-war time internal migration had undoubtedly acquired importance, but the possibilities it offered were limited, especially for the classes of the population which were formerly concerned in the emigration movements. Emigration and seasonal migration thus assumed increasing importance from year to year, but, as may be seen from the following table, these two types of migration, even at their greatest extent in 1929, lag far behind the pre-war figures. In particular overseas emigration has encountered constantly increasing difficulties. The quota of immigrants from Poland allowed into the United States was only a fraction of the earlier Polish immigration.

As appears from a second table, the emigration figure fell from 243,400 in 1929 to 218,400 in 1930 and to 76,000 in 1931. Over the same period however the diminution in the numbers of returned emigrants was much less marked, the figures falling in fact from 104,500 to 101,100 and then to 87,700. Hence in place of a surplus of emigration of 138,900 persons in 1929 and of 117,300 persons in 1930, there was registered in 1931 a surplus of returned emigrants to the number of 9,700. The year 1932 proved even more unfavourable. Emigration into Germany dropped from 32,300 of the year before to 389 persons only. It is not possible to count upon any resumption of emigration into Germany, it was almost exclusively an immigration of seasonal labour, and Germany has now barred such immigration. The emigration into France has been reduced to a quite insignificant figure, whereas in 1930 the number was 86,000, and in 1931 still 28,400, in 1932 it was 8,100 persons only.

Polish Emigration and Immigration over the period 1920 to 1932

Average for years 1920-	Overseas emigration	Return of overseas emigrants	Continental emigration	Return of emigrants by land
1924	55,577	33,325	37,708	—
1925	38,449	4,101	42,769	17,131
1926	49,893	6,017	117,616	49,171
1927	58,187	6,799	59,427	73,014
1928	64,581	6,159	122,049	112,921
1929	65,310	6,571	178,132	97,932
1930	46,534	7,625	171,153	93,459
1931	11,770	7,223	64,235	80,455
1932	9,661	5,867	11,766	32,113

On the other hand, the returned emigrants from France in 1932 numbered 25,100 persons, as in that country a proportion of the foreign industrial workers were dismissed. Emigration to overseas countries and return from these countries closed unfavourably in 1932 with an emigration of 9,600 and a return movement of 5,900 persons. Hence the total result of migration between Poles and other countries for 1932 was an excess of returned emigrants of 16,500 persons.

As a consequence the increase of population has, more than ever before, to be accommodated in Poland itself. The difficulties involved are only too readily understood in view of the conditions already explained taken together with the high yearly rate of increase. The natural increase in the population has been as follows:

Years	Births 1000 inhabitants	Excess of births absolute in 1000	per 1000 inhabitants
1927	31.6	433	14.3
1928	32.0	479	15.6
1929	31.7	468	15.0
1930	32.3	526	16.7
1931	30.3	471	14.8

It is not, however, merely the emigration which has ceased but the migration from the land to industry and urban life. The absorption capacity of industry has since 1928 declined from one year to the next. If the industrial production of 1928 is taken as 100, in 1930 it fell to 80, in 1931 to 50 and in 1932, to 50, with corresponding increases of unemployment and short time. The unemployment allowance was so small that some proportion of the unemployed, chiefly the younger unmarried men, returned to their relatives in the country. This course was not open to the majority and consequently in the industrial districts of Polish Silesia at the end of 1932 the first beginnings of an attempt were made to attract some part of the unemployed into the country by means of suburban settlement and small holding schemes.

Emigration from and Return movement to Poland (1000 persons).

YEARS	Total of emigrants	Total of returned persons	Return — or —	Emigra- tion into	Return from	Emigra- tion into	Return from	Emigra- tion into	Return from
				France		Germany		U.S.S.R.	
1928	1866	1141	— 67.5	321	101	854	822	14	2
1929	2434	1045	— 138.0	815	84	872	827	45	3
1930	2154	1011	— 117.3	815	98	775	755	119	7
1931	760	87	— 9.7	274	202	32	45	115	22
1932	214	370	— 16.5	51	257	0	15	1	54

The rural areas thus have to bear the first brunt of the consequences of this change in the migratory movement, while under present conditions agriculture is in no way in a position to absorb the increase of population. This is readily comprehensible, if the severity of the crisis affecting Polish agriculture is recognised. While the prices for agricultural products have fallen considerably lower than the world market prices, industry has been able to maintain its prices at a better level. The increasing pressure of indebtedness at a low rate of interest has brought about such dire poverty among the peasant farmer class that any Government measures, such as premiums on exports, debt conversion and protection against foreclosure, must remain quite inadequate. It is for this reason that both family farms and the large farms have been forced to limit the number of their wage earning workers. A very clear and detailed account of the transformation of conditions of rural life is given by M. MALINOWSKI in an article on rural unemployment in Poland (1) published in the *Prague Bulletin du Bureau international agraire* in 1933. According to the writer, the number of permanent farm workers has been reduced by half, and even by 75 per cent., in some districts. The employment also of job or seasonal labour has greatly decreased. The mechanisation effected in previous years contributed largely to bring about this reduction in labour strength, which accordingly does not necessarily always entail a limitation of production.

(1) MAKSYMILIAN MALINOWSKI, President of the Congress of the Polish Popular Party. *Le Chomage dans les campagnes polonaises. Bulletin du Bureau international agraire*, 1933. No 2. Prague, 1933.

The count of workers thus set free, together with those to whom the path of emigration has been closed, swells the total of agricultural unemployment. No precise data are available as to the extent assumed by this unemployment in the meantime. This is extremely difficult to estimate, and it seems to be almost impossible to determine the extent of the immense amount of permanent unemployment on the small and very small holdings.

According to Malinowski the estimate made by experts of the number of rural unemployed in Poland is over five million persons. In explanation of this enormous mass of unemployment in the country, which at first sight seems beyond belief, Malinowski gives some characteristic data in relation to the social grouping of the rural population of Poland. According to these figures, 7.5 million or 35 per cent. of the rural population belong to the landless class, and 11.4 million or 50 per cent. to the class of persons with unduly small holdings (0.5 to 2.0 hectares), so that only 3.9 million persons or 17 per cent. may be regarded as the really independent agricultural population. In any case these data prove that the number of the unemployed must be very great and that it is possible for a small fraction only to find employment on the land. On the other hand the fact that, out of a total of 360, 031 unemployed persons registered at the Employment Bureaus in the first months of 1933, only 3,739 were agricultural workers, is significant of the existing complete incapacity for dealing with agricultural unemployment.

The consequences of this unemployment are the same as in other countries. It presses most heavily on the densely populated areas of small or family farming. Even previously there was not subsistence for all in the crowded home; now in every family, on every small farm, so to speak, there are one or more persons whose labour it is impossible to utilise. The output of each individual is for this reason very small and is used up to the full, and there is no longer any means of improving the output capacity, so that a general and increasing destitution is the result.

It should not be impracticable to find means of arresting alike the crisis and the unemployment. Measures of this kind are land settlement, execution of land improvement works, the general intensification of agricultural production and the improvement of marketing conditions. A number of measures of this type have been passed by the Government, but there can be no immediate or perceptible effect, since any such effect must depend not merely on an improvement in the home situation but also on improvement in the general economic situation. An increase in production, which is the objective of these measures, brings relief only in parts of the country where not enough had been previously produced to meet the sustenance requirements of the population. Another remedy is industrialisation, which with emigration offers the possibility of absorption excess of the rural population. In the case of Poland industrialisation involves a further development of autarchy in national economy, but at present any such development would encounter extraordinary difficulties as regards supply of capital, and in the present situation of the internal market there would be no less serious difficulties attending the future disposal of the resulting industrial products

SWEDEN

In 1929, again a year of favourable industrial conditions in Sweden, the marked immigration into the towns continued. This was checked in 1930 and in 1931 there was a noticeable "glut" of rural labour forces, a considerable return movement from the towns, accompanied by an increase in rural unemployment.

Before the industrial crisis of 1921-22, unemployment in the country was a phenomenon practically unknown in Sweden, but since that year, it has become permanent. Since 1929 the situation has become markedly worse; in particular the winter unemployment of male workers has increased as a result of the depression in forestry, while in many places there is still a shortage of female labour.

This "glut" or congestion in rural labour appears from the official statistics of land workers. In 1929 out of the whole number of persons making these statistical returns for the Government, 13.6 per cent. only reported that, in relation to the normal labour requirements an over supply of labour was a common phenomenon on certain farms; in 1932 a report to the same effect was made by 53 per cent. The Social Board in its Report on labour supply and wages in agriculture in 1932 (*Sociala Meddelanden*, 1933, No 2) states that nowadays it is quite usual among the small family farmers, and even among the workers living on the farm and paid partly in kind and also the job labourers, for the grown up sons who are unemployed to return to the paternal roof and over long periods to share in the meagre provision of the family.

In addition to rationalisation of industry, unemployment in the towns and the unfavourable situation in forestry, other important causes of rural unemployment are the stoppage of emigration and rationalisation in agriculture.

From 1901 to 1910 the average yearly emigration overseas, in particular to the United States, was 22,404 persons, as against an immigration into Sweden of 4499 persons. In comparison with overseas emigration, that to European countries was insignificant, the average for 1901 to 1910 being 3365 persons against an immigration of 3,943.

In the years 1927-31 the course taken by emigration and immigration was as follows:

Year	Emigration		Immigration	
	of nationals and Overseas	foreigners Continental	of nationals and Overseas	foreigners Continental
1927	10,958	1,889	2,847	2,831
1928	11,683	1,767	2,952	2,656
1929	9,157	1,862	2,879	3,457
1930	3,719	1,963	4,649	2,866
1931	1,165	1,806	5,670	2,720

As this table shows, transoceanic emigration has been much curtailed during recent years, and since 1930 the figures have fallen below those for immigration from overseas countries. Emigration to the other European countries has remained, as in prewar times, below the immigration from such countries.

The extension of permanent grazing lands, the reduction in the area cultivated in root crops and in cereals, the mechanisation and electrification of agriculture and the unfavourable price development which has compelled farmers to make shift with less wage-earning labour, all these causes, according to the investigations undertaken in Sweden into farm economy, have contributed during the last decade to reduce by 15 to 20 per cent. the number of male workers employed on the large and medium-sized farms. For female labour the reduction is even greater, especially on the large farms.

A large number of the superfluous workers on the land have found occupation by means of the assistance loans (*Stodlån*) granted by the State, as voted by Parliament in 1932. These loans, up to a certain point, can be repaid only by the execution of certain kinds of work.

A more effective measure still in the campaign against rural unemployment is to be found in the proposal now before Parliament, made by the Government Rural Housing Commission for State grants in aid of repair or erection of rural dwellings.

The conclusion reached by the Commission is that there are in the rural areas 6,500 houses with small apartments (i. e. with two rooms and a kitchen or less) the condition of which is such that they must be replaced by new buildings, and that there are 55,900 other such dwellings that require repair, and that the total cost of all such work should amount to about 65,000,000 crowns. The initiation of such a building activity would provide throughout the country the employment that is so much needed.

Two types of loans are proposed: repairing loans and building loans. The former are not to cover more than 50 per cent. of the estimated expenditure, and on an absolute estimate, no loan will exceed 1000 crowns. The loans for new buildings should not cover more than 70 per cent. of the estimated expenditure, and in no case will they exceed 2000 crowns.

As regards the repairing loans neither interest nor security will be required. The loan will be considered as liquidated if the work is accomplished within the time prescribed. For the building loans, on the other hand, a four per cent. rate of interest will be charged and a guarantee required with repayment by annual amortisation instalments over twenty years.

The Commission proposes that the 20 million crowns set aside in the State budget for building purposes — a measure intended to meet the unemployment crisis — should be especially employed for encouragement of rural building. "If this is done," to quote the report of the Commission, "it may be calculated that work will be accomplished that will correspond to a sum many times as great."

Another measure taken by the State, likely to be of importance in view of the congestion of rural labour and the return of workers from the towns, is the institution of a new loan fund as proposed by the State Land Commission. From this fund it is proposed that forest and farm workers, sons of the small family farmers and of tenant farmers, and other persons who are without means of their own may obtain loans free of interest up to 4000 crowns for purposes of land settlement. An amortisation period of 30 years and in special circumstances

up to 35 years. No amortisation payment will be required during the first five years. According to the investigation made by the Commission enough suitable land is available.

Mention should also be made of private enterprise directed towards the settlement of the unemployed on the land. In February 1933 the National Association "Land for the Workless" (*Rikstöreningen Jord åt Arbetslösa*) was founded, the object of which is to find land and occupation on the land for unemployed men who already possess farming experience and whose wives are capable of managing a farm household; also to provide in the case of juvenile unemployment for instruction in agriculture and some possibility of earning a livelihood on the land.

The Association proposes to act through provincial and local branches distributed throughout Sweden, membership being open alike to those who can offer and to those who are seeking assistance.

Land will be granted either in individual ownership or in co-operative ownership. The Association will endeavour to collaborate with the authorities who are concerned in the assignment of the land settlement loans granted by the State. Where practicable there will be ownership in common of woods, grazing land, the larger and more costly machines, etc.

The provision of land will be met in the first instance from public land. In view of the poverty of most of those who are trying to obtain land, the National Association will place at their disposal the money required for purchase of land, live stock, and even for temporary maintenance.

The funds required will be constituted by contributions from firms and private individuals and from State and communal subsidies.

The settlers are expected to repay the loans by means of amortisation payments extending over several years. Payment may be made in cash or by means of work in land – clearing or other forms of land improvement. A certain proportion of the loan will be remitted as a premium on good farming.

The Association is asking the Government for a contribution of 5 millions crowns to be made out of the unemployment relief funds.

Finally there is the initiative taken by the large Iron-mining Company (Luossavaara – Kirunaavaara) which calls for mention as symptomatic of the present emergency. As in accordance with the provisions of the law young people under the age of 20 may not work in the mines, and as in present conditions, many of those who have reached that age are unable to find employment, the Company has established an agricultural three years course for sons of miners in the theory and practice of farming.

UNITED STATES OF AMERICA.

The industrial crisis from which the United States as well as the rest of the world is suffering has various and widespread consequences. Unemployment and diminished earnings have obliged people of all classes to seek remedies for financial losses and a radical solution for their difficulties. For years the American people, attracted by high salaries in times of industrial prosperity, have

left the farms for the cities, abandoning the less lucrative even if more permanent work in the fields. The rural youth especially, initiated into city life during the school years, abandoned the paternal roof to find employment in the cities. And for years the fact of the depopulation of the farm and rural districts in the United States was lamented, but the phenomenon seemed to be beyond control. The industrial crisis has proved that the reversal of the movement of the population appears to be equally beyond control. For several years past the flux of the population has not been all in favour of the cities, as had been the case for practically all the decade preceding the crisis. Today the losses in population sustained by the rural districts during the years of industrial prosperity are amply compensated. Problems have arisen not as formerly from a lack of farm labour, but from a too rapid influx of population on the farms, where the agriculturists who had remained true to the land are finding it extremely difficult to derive a fair return from the soil.

The movement away from the towns and villages towards the country first began to attract official attention during the year 1930. The Division of Rural Economy of the Department of Agriculture in Washington received requests for information on mainly the following points :

a) What parts of the country are most favourable for those who wish to devote themselves to agriculture ?

b) How can one most economically manage the transition from city to country ?

c) About how much land is necessary to assure subsistence for a family ?

d) What is the approximate rent for agricultural land ?

This last question, according to the Department of Agriculture (1) came from people who had little ready cash on hand; people who desired to leave the industrial centres hit by the depression, and among these latter some who had saved enough money to retire to the country and invest in agriculture the savings of more prosperous times. From the same source we know that a few requests came from manufacturers desirous of helping their unemployed workmen. In these cases the inquirers desired to be informed where land might profitably be bought for distribution among those who wished to settle on it. Another category of people, who in the early months of 1930 showed a tendency to move countryward, was composed of young men and women of rural families who had gone to the villages and cities and were now returning, on account of lack of employment there, to their homes and to work in the fields (2).

It is evident that so far, officially at least, the back to the land movement has not caused any preoccupation. Indeed the inquiries reaching the Department of Agriculture, seemed to indicate a carefully planned scheme on the part of the inquirers. The movement however appeared to have been sufficiently important to deserve a special mention in an official statement issued on 18 February 1931 by the Department of Agriculture, wherein the fact is stated that, " for the first time in ten years the farm population has increased as a result of a countryward

(1) See *The United States Daily*, Washington, D. C., 24 January, 1931.

(2) C. J. GALPIN in *The United States Daily*, Washington, D. C., 24 January, 1931.

movement of the city population " taken together with the normal surplus of births over deaths in the farm population. The statement relates naturally to the year 1930. During 1931 there seems to have been a net increase of the farm population in consequence of immigration from the cities and the villages, independent of the increase by births. The period is marked also by the beginning of another phase of the back-to-the-farm movement, of which more will be said later.

It must be stated at once that, so far, figures on the extent of the movement are not sufficiently clear to justify their being given here as absolutely reliable. One can only take some fundamental census data and notice the general trend of the farm population up to the year 1930 when the back-to-the-farm movement is generally admitted as having started in earnest. The census figures of farm population are as follows :

1920.	31,614,269
1925.	28,981,668
1930.	30,445,350

These figures are not strictly comparable, the basis having been slightly different in 1925 from what it was in 1920, and the census of 1930 having been taken on 1 April instead of having been taken on 1 January, as was the case with the previous censuses. But even allowing for adjustments to make the figures comparable it seems clear that while, as between 1920 and 1925 there had been a decrease in the farm population, between 1925 and 1930 there was an increase. Hence at some date in the neighbourhood of 1925 the number of persons coming from cities and villages to the farms added to the natural increase of the farm population (that is, the excess of births over deaths) must have begun to exceed the number of persons leaving the farms and going to the villages and cities.

When this first occurred, it is not easy to say. An attempt is made by the Bureau of Agricultural Economics of the Department of Agriculture to estimate from year to year the movement of the population from farms to cities and from cities to farms, and according to these calculations the movement back to the farms, as mentioned above, was greater than the movement away from the farms for the first time in 1930, but the figures have been more than once revised, and even as finally revised do not appear to be consistent with the census figures.

But though the statistics of the movement may not be complete and though it may not be clear when it first became important, there is ample evidence that in recent years there has been a very considerable flow of population from cities and villages to the farms. By the end of the year 1930 and during the year 1931 the movement had become so noticeable as to be officially recognised as " general ". Only the New England States and the Southern Atlantic States still showed the tendency to a prevalence of a cityward movement. But also these States have not failed to register one side of the back-to-the-land trend which the available data do not take into consideration. There are a number of families in every part of the United States who since the beginning of 1930 have tried to mitigate the evils of the depression by planting vegetable gardens varying in size from $\frac{1}{4}$ to

2 acres, which they have bought or rented, or have found unoccupied and taken possession of, near their homes. Charitable societies have often helped these improvised farmers to obtain seeds, implements and fertilizers. Their object is to cultivate vegetables and fruits for their immediate use. But it is evident that this movement, which is indeed extremely widespread, cannot be considered part of the real movement towards the country. As soon as industrial conditions improve, the majority of this group will abandon the land cultivated from necessity. The Bureau of Agricultural Economics of the Department of Agriculture explicitly declares that this attempt to obtain food at low cost must not be confused with the real back to the land movement on the part of urbanized rurals, or those who intend to devote themselves profitably and permanently to agriculture (1). The intensity and generality of the movement during the years 1931 and 1932 are admitted. The Department of Agriculture, in November 1932, stated that if the tendency to return to the land continued with the same intensity as in the first three months of the same year 1932, "there will have taken place a complete reversal of the situation existing during the years 1920-1930", during which the trend had been chiefly citywards. Whatever the exact figures will be when all the data gathered by the Bureau of Agricultural Economics of the Department of Agriculture are properly tabulated, the fact remains that the same Bureau at the end of April 1933 announced that "the farm population of the United States is now the largest in history." (2). The complete reversal has occurred: indeed, according to the Bureau of Agricultural Economics, the countryward movement during 1932 exceeded the cityward trend by about 533,000 persons. By adding to this number the surplus of births over deaths on farms, which accounts for 468,000 persons, according to the same source, an increase of over one million in the year 1932 alone may be considered as a safe estimate. So that it can be safely admitted that on 1 January 1933 the farm population in the United States reached the highest mark in the history of the country.

These figures give a clear idea of the vastness of the movement. Experts complete the picture by giving a detailed description of its characteristics. "Dwellers in the cities and towns, forced out of employment by the curtailing of business and industry and the stilling of factory wheels, tired of walking the sidewalks looking for work that does not exist, unable to pay the high rents or buy food for their families, unwilling to accept charity, are fleeing in mingled despair and hope to the country and to the land." (3). So wrote Harry O'Brien in the *Country Gentleman*, a review the standing of which guarantees the trustworthiness of the statement. The same author observes that the arrival of these "refugee victims of the depression" has created a series of new problems for the rural districts. For, even though a certain number have taken up land according to the advice of the Department of Agriculture, the great majority have rented

(1) See *Farm Population and Rural Life Activities*, Bureau of Agricultural Economics, U. S. Department of Agriculture, 1st September 1932, Vol. VI, n. 3.

(2) See *The Journal of Commerce*, New York, 27 April 1933, p. 2.

(3) See *The New Stampede to the Land* by HARRY O'BRIEN, in *The Country Gentleman*, Philadelphia October 1932.

vacant land, when they had means to do so, or have installed themselves on abandoned farms, without asking whether the abandonment of the land by the former owners was due or not to the impossibility of getting fair returns out of this land. Responsible authorities however are now giving the closest attention to this side of the problem. Unquestionably the real farmers who for generations have farmed for profit, and who have for years suffered from the economic crisis, find it more difficult today to dispose of their products because millions of individuals have turned to what is called "agriculture for subsistence". In the beginning this kind of agricultural production was limited to small plots cultivated by city dwellers. But since the second half of 1931 the newcomers to the rural districts have extended subsistence farming to these districts also. The question arises how many of them, when they have come through the crisis, even if they are really anxious to become permanent farmers, will be able to do so on the land they have acquired or occupied. Merely to state the problem is to realize its gravity. And, in fact, the 1932 Yearbook of the U. S. Department of Agriculture observes, in relation to this situation: "Undoubtedly the present trend is fraught with important agricultural consequences. It will increase the difficulty of adjusting farm production to market requirements and will weaken the urban markets for agricultural goods. On the other hand it has a good side, for subsistence is more easily got in the country than in the town in periods of trade depression."

The stampede to the land has multiplied the farmers' difficulties in every but one respect: it has further cheapened farm labour. But can this be considered an advantage for either the farmer or his employees? From what has been said so far it appears that the course of the back-to-the-farm movement has both been difficult to follow and in itself has lacked homogeneity. Some have bought the land on which now only what is required for the needs of the family is produced. Others have rented the land and dwelling they occupy and cultivate. But the great majority of these new "pioneers" have taken possession of land and buildings found vacant along the road they happened to be following in their flight from the cities and villages. Where no buildings existed, cabins and cottages have been built; and in some very poor sections of Southern and Mid-Western States, one can see families living under tents. Those who have bought land have generally acted with a certain amount of prudence, although even among these not a few have fallen the victims of speculators. But the mass of the hundreds of thousands who have gone to the country "have gone first of all to areas of marginal land. This is land that in recent years had been deserted; land where it is hard to earn a living, where soil is sandy or hilly or wooded, where abandoned farms have reverted to the state for nonpayment of taxes, where tax burdens are almost intolerable upon those who have remained... All are hoping for a cheap home, a garden, a few chickens, food and shelter and a chance to do some work." (1). Nor is the picture of the situation presented in a less alarming way in official documents. At page 469 of the 1932 Yearbook

(1) See "The New Stampede to the Land" by Harry O'BRIEN, in *The Country Gentleman*, Philadelphia, October 1932.

of the U. S. Department of Agriculture one may find the following remarks : " A large number of jobless families have undoubtedly moved to the country as potential farm owners, regardless of the fact that well-established farmers are experiencing difficulty in maintaining a satisfactory standard of living. Without advice having a sound actual basis many of these new farm families are doomed from the start to failure. Undirected and misdirected settlement has in times past resulted in the loss of economic and human resources, and the chances for loss to-day are as great or greater than ever, because of the limited need for increasing our net crop average. "

Save for some rare exceptions, this picture of the situation holds good for the whole of the United States, and remedies for it are not easy to find.

A better understanding will be reached of what has been attempted in the matter of remedies, and of what may eventually be done to improve the situation if we turn our attention to actual conditions, beginning with the value of farmland. The following figures speak for themselves. The censuses taken in 1920 and 1930 indicate that for the country as a whole the per acre value of farmland and buildings was 30 per cent. less in 1930 than in 1920 and that by far the great majority of the States in 1930 reported farm real estate values much below those of 1920. The average value per acre of farm real estate was \$ 48.52 in 1930 (1) as compared with \$ 81.42 in 1920 (2).

In the year 1930-31 not only has the decline of farmland values been more severe than in previous years, but it has been far more general, reaching in some degree at least to nearly every corner of the Country. For the year ended March 1931 in fact the figures given by the Bureau of Agricultural Economics of the Department of Agriculture indicated declines in 46 of the 48 States, with no change for the remaining 2, whereas the previous year 24 States had experienced declines, 18 had remained unchanged and 6 had reported small increases (3). The main cause of the reduced farmland values has been a sharp decline in the prices of agricultural products. Hence incomes have been reduced. Reduced incomes together with heavy taxation have caused havoc among farm owners. The census of 1930 shows that up to that time out of a total of 2,911,644 farms which were operated by full owners, 1,569,178 were free from debt. The total of the mortgage indebtedness reported upon the 1,145,737 of the remaining farms reached the sum of \$ 4,080,176,438. These mortgaged farms in 1930 had an estimated value of \$ 10,307,733.037 and the mortgages amounted to 39.58 per cent of the value (4). But conditions deteriorated rapidly in the course of the year 1930-31. Land has become cheap : yet its depreciation has made prospective voluntary buyers very cautious, and

(1) See " Yearbook of Agriculture " 1932. Pag. 474.

(2) Fourteenth Census of the United States, 1920. Vol. V. Department of Commerce, Bureau of Census. Washington D. C. 1922.

(3) The Farm Real Estate Situation, 1930-31. U. S. Department of Agriculture, Circular N° 209 December 1931.

(4) " Why Land is so cheap " by Louis H. Cook, in *The Country Gentleman*, Philadelphia, December 1932.

the market would have been inactive, had it not been for the sales through mortgage foreclosures, tax delinquency, bankruptcy proceedings, etc. At the end of February 1932 the Department of Agriculture at Washington calculated that nearly one tenth of the farms all over the country had been lost by forced sales in five years. Regarding taxation on the farm real estate the Department, at the same date, reported that rural property taxes were double the pre-war level (1). For the year ended March 1931, an average of 26.1 farms out of 1000 were sold through one of the causes mentioned above. The average for 1929-1930 had been 20.8 and for the year before 19.5. The immediate consequence of this unfavourable situation of the farmland market is that in practically no part of the United States until very recently has it been possible to sell farm land without suffering competition from forced sales (2).

The Federal Loan Banks; Joint-stock Land Banks and Life Insurance Companies (3), that is the chief creditors of agricultural communities all over the Country, at the end of February 1932 found themselves the owners respectively of 72,011,916, 35,445,715 and 2,000,000,000 dollars worth of agricultural land. These figures do not include sheriffs' certificates, delinquent interests, instalments due at that time and other forms of farmers' obligations in the hands of their creditors. While figures relating to the situation resulting from the increasing seriousness of the crisis during the year 1932-33 are not as yet available, official documents and experts for specialized papers and magazines invariably assert that conditions are far worse today than they were a year ago (4).

It has been remarked before that the established farmers were benefited in one way by the wave of returning or new settlers in the country districts. They could get all the help they might wish exceedingly cheap. In fact the wages of farm hands came down and have now reached the lowest point for 34 years. No other category of workers has seen its wages shrink to such a low level as farm hands. On 1 January 1933 the general level of farm rate wages declined to 74 per cent. of the five years pre-war average. The striking figure of a 12 per cent. decline was registered in the course of the last three months of 1932. For the whole year 1932 the wage level for these workers was about 24 per cent. lower than the level in 1931. Expressed in cash figures, the wages of farm hands on 1 January 1933 ranged from 40 cents in South Carolina and Georgia to 1.75 in Rhode Island (5).

(1) See *The United States Daily*, Washington, D. C., 17 January 1933.

(2) Measures have now been taken to stop forced sales and foreclosures as part of the Roosevelt's administration plan to aid the farmers. Of such measures mention will be made later.

(3) One single company in New York has nearly 200 million dollars invested in farm loans, and owns 15,000,000 dollars in farm lands. It is interesting to notice that in spite of depreciation of values, this same Company does not consider its losses at all heavy compared with losses due to the depreciation of other, chiefly railroad investments.

(4) See *The Country Gentleman*, Philadelphia, Pa., December 1932, "Why Land is so cheap", by Louis H. Cook.

(5) The States of Rhode Island and Minnesota seem to represent two fortunate exceptions to the general rule of agricultural depression in the United States. As regards the State of Rhode Island, according

But it does not appear that many established farmers have been in a position to avail themselves of this exceptional abundance of cheap labour. In fact ever since the present agricultural crisis began, farmers have been forced to economize on everything. And although the repeated appeals of the Department of Agriculture that acreage be reduced and production limited have found but little response on the part of most farmers, it is a fact that they have tried to reduce their expenses and have limited their use of hired labour to a minimum (1). Mechanization had already done its part in reducing the number of people needed on the farm. "Because agriculture can no longer expand under existing conditions, it will be increasingly unable to care for the unemployed farm workers who are thrown out of a job by improved machinery" the *Monthly Labour Review* published by the Department of Labour in Washington wrote as far back as October 1931. And it added: "The process of agricultural mechanization in this country has just begun. It is likely that within the next few years practically all wheat produced in this country will be grown under conditions existing in the industry in the Great Plains region and in the Northwest: that is, on large farms with big hook-ups of the most modern machinery, a maximum of mechanical power and a minimum of man power." (2).

Large number of unemployed men and women from cities and villages have made their home in the country since the remarks quoted above were published. Indeed the situation cannot have improved. Plans to help unemployed city dwellers to find work on the farms were started soon after the industrial crisis began to show itself in bread lines, in appeals to charitable institutions and in other signs of growing distress. But it was soon found that labour was not wanted on the farms. Yet the back-to-the-land movement continued and grew. It has already been seen how so many of these people settled on the land. So far nothing would appear to have been decided as to how the question of land ownership is going to be settled if and when old owners claim land which newcomers have occupied simply because they found it abandoned. It is known however that forced sales and foreclosures have been stopped because not only they proved ineffectual, but also because they made a bad situation decidedly worse: so much so in fact that legislative measures were deemed necessary to regulate this matter. It was on 9 February 1933 that the Senate Committee on Banking and Currency

to Harry R. Lewis, Commissioner of the Department of Agriculture of the State, its favoured situation is due to the fact that only the best agricultural land has been farmed and there has been a considerable reduction in rural farm population since 1925. Improved methods of production, according to the same authority, have allowed the maintenance of normal conditions in spite of the crisis. (See *The United States Daily*, Washington, D. C., 19 March 1932).

As regards the State of Minnesota, the Chairman of the Rural Credit Bureau of the State, C. F. Gaarenstrom, in an editorial which appeared in *The United States Daily* on 16 March 1932, explained that the successful policy adopted by the State Legislature to make Minnesota a State of farm owners has made it possible for it to offer fully improved land at exceptionally attractive prices and conditions of payment, thus bringing "the land back to the taxation rolls where it belongs."

(1) See *The United States Daily*, Washington, D. C., 19 January 1933.

(2) See *Monthly Labour Review*, October 1931. Published by the Bureau of Labour Statistics, Department of Labour, Washington, D. C.

reported favourably on the Hull Bill "designed to prevent further foreclosures of mortgage farm lands for a period of two years". And on February 27th, 1933 the House of Representatives in Washington voted the Steagall Bill "extending delinquent payments on farm mortgages over a period of ten years and authorizing loans to be made direct to farmers by Federal Land Banks in localities where Farm Loan Associations have not been organized". In addition to extending the period of delinquent payments the Steagall Bill also provides that "any land bank may carry real estate as an asset for a period of five years at an amount equal to the bank's investment at the time of acquirement of such real estate." (1).

But broader and more permanent measures have long appeared to be needed if American agriculture is to maintain the standard it had attained. Agricultural experts have long advocated a State and Federal Land policy. Attention was given to their suggestions by Mr. Hyde, the Secretary of Agriculture under Mr. Hoover's administration, and steps were taken to prepare a "National Land Policy". Under Mr. Hyde's scheme two Committees of experts were to study the land situation all over the Country and to submit a practical report suggesting a form of federal action in the matter. The Committees, known as the National Advisory and Legislative Committee on Land Use and The National Land Use Planning Committee, in the early Autumn of 1932 considered the situation created by the back-to-the-land movement so serious that they issued a joint statement made public by the Department of Agriculture on November 17 of the same year. In that statement the opinion was expressed that "a wholesale unguided movement back to the farm would be the poorest possible solution of the unemployment problem", and that "to sponsor such a movement would permanently affect all hope of agricultural stability and prosperity." The statement further said: "We ask all who seriously propose a wholesale back to the land movement at this time to consider first these points: the distress of American Agriculture for a full decade has been a major factor in the severity of the present economic depression. Industry now knows, as perhaps it has never known before, that the country's most basic need is a prosperous agriculture.... To propose now to shift vast numbers of the industrial unemployed out on to the land, indiscriminately and without guidance, is to propose an increased agricultural production at precisely the wrong time." (2). Since Mr. Hyde's first action (in February 1932) and the joint statement quoted above, the need for a definite land policy has become more acute, inasmuch as, contrary to all expert advice, just such land as should never have been put under cultivation or which should have been allowed to revert to some more profitable use, has been occupied by the "pioneers" of the back to the land movement. In due time figures will be available to show the extent of this unprofitable land exploitation. In the meantime, while plans are being devised for a radical solution of the farm situation in the United States, temporary measures are being advocated both officially and by other expert parties.

(1) See *The Journal of Commerce*, New York, 28 February 1933.

(2) See *The United States Daily*, Washington, D. C., 17 November 1932.

In an editorial published on 2 March 1932, the Commissioner of Agriculture of the State of Arkansas wrote: ' If there was a sensible time for a live-at-home plan, it is now. A live-at-home farming plan calls for the production of enough of all the vegetables and cereal crops that may be necessary for human food for those on the farms. This includes fruits and berries of all kinds... In other words, the safe plan is to provide on the farm all of the food and feed required...' (1). And on 3 January 1933 the Bureau of Agricultural Economics in its Year-end-Review of the Agricultural Situation of the country remarked that reports from every section gave full details regarding the trend towards a subsistence type of farming on the part of established farmers who found profit farming increasingly difficult. And yet, the Bureau of Economics further remarked, "from all quarters is confirmed the story of the migration from town back to the country on the part of crowds for whom the plight of the regular farmer does not seem to be a deterrent." At the same time however, the Bureau states that "under the stress of unprecedented circumstances agriculture has demonstrated once more its capacity as an economic shock-absorber" (2). It might be noticed in passing that the views on the situation as expressed in the Year-end Review seem to conflict with those expressed in the statement issued on November 17th 1932 by the Committees on Farm Policy, although it agrees with the views expressed in the 1932 Yearbook which says: "in time of stress unemployed city families, particularly those who have had previous farming experience, look to the farms for a means of subsistence." (3). But one is once more inclined to remark that the back-to-the-land movement in the United States assumed from the start unforeseen proportions and developed rapidly. Its potential consequences are not yet clear. If however the subsistence type of farming extends, there is no question that American agriculture will undergo a revolutionary modification. There is no question too that no farming on a large scale is possible or profitable as long as the present crisis lasts. Determined efforts have been and are being made to offset the worst and most objectionable characteristics of the crisis in so far as it affects agriculture. Mr. Hoover, on 20 February 1933, two weeks before his retirement from the Presidency of the United States sent to Congress a special message intended to obtain immediate action for the relief of the farmers and of the agricultural situation in general. Upholding a principle which the Secretary of Agriculture under his administration, Mr. Hyde, had repeatedly sponsored, Mr. Hoover in his message asked Congress to authorize the forced withdrawal from cultivation of all the marginal land, which should revert to purposes other than agricultural. Undoubtedly Mr. Hoover's plan was meant to consider also the situation of the hosts of new farmers most of whom had found refuge precisely on marginal land.

(1) See *The United States Daily*, Washington, D. C. 2 March, 1932. An Editorial by Earl PAGE; Commissioner of Agriculture, State of Arkansas.

(2) See Year-end Review of the Agricultural Situation. The United States Bureau of Agricultural Economics, Department of Agriculture, 3 January 1933.

(3) See U. S. Yearbook of Agriculture, 1932, page 460.

Congress however did not act on the proposed measure, which, outside of Congress itself, met with considerable criticism and opposition ¹. The new Secretary of Agriculture, Mr. Wallace, took up the matter of farm relief immediately after the presidential inauguration. On 9 March 1933, he called a meeting of the leaders of the American Agricultural Associations. In his address to them Mr. Wallace said: "Any program (for farm relief) that is adopted must provide for an orderly retreat from those acres for which there remains no foreign purchasing power." In other words the new Secretary for Agriculture practically made his own the plan of his predecessor in office and announced that the policy of the new administration was to reduce acreage and production.

On the other hand President Roosevelt, shortly before his inauguration at Washington, addressing a large crowd of students from the American Universities, told them that they must prepare to return to and take up duties on the land, because the cities, even with returning industrial prosperity, would no longer provide jobs for all of them. On several occasions during his electoral campaign Mr. Roosevelt had advocated a policy of encouragement of an orderly back-to-the-land movement and had announced a plan of his own to find work for unemployed at large. His plan is now known to include land reclamation on a broad scale in various sections of the country. But Secretary Wallace, in the address quoted above, mentioned the fact that no definite announcement could be made concerning the farm relief plan of the Administration in its details, because, the Secretary said, "with the economic situation shifting from day to day, any relief plans will have to change to reflect new conditions." The farm leaders whom Secretary Wallace had called into consultation and to whom he had confided the charge of preparing a farm relief scheme, failed to agree and decided to report to the Secretary that they would back proposals whereby Congress should authorize President Roosevelt and the Secretary of Agriculture himself "to take over responsibility to solve farm ills." ⁽²⁾ This authority has been granted following a short message which the President sent Congress on 17 March 1933, asking for "immediate enactment of a farm relief program empowering the administration to control production and increase prices. By the measure approved by Congress Secretary Wallace is empowered to reduce acreage of specified farm products and compensate producers for such reduction..." The funds to bring immediate efficient relief to indebted farmers have also been voted by Congress. It has been seen already that forced sales and mortgage indebtedness liabilities have been suspended. But it cannot be said that the problems deriving from the magnitude of the landward movement during the last few years appear to have been considered apart from a general and thus far unknown land policy scheme. It may be said however that the official attitude towards the back-to-the-land movement is still one of watchful waiting and uncertainty, as evidenced by some

(1) For a critical discussion of this plan see *The Journal of Commerce*, New York, 23 February 1933.

(2) See *The Journal of Commerce*, New York, 14 March, 1933.

very recent statements by Dr. Theo B. Manny of the Division of Farm Population and Rural Life of the United States Bureau of Agricultural Economics. Dr. Manny in an address before the Third Conference of Purnell Research Specialists in Rural Sociology said: "Judging from the frequency of citations in the press and in periodical literature, the so-called back-to-the-land movement is at the forefront of the popular interest. The research project of the United States Department of Agriculture concerning changes in number of persons living on farms and in movements of persons to and from farms is intended primarily to show only the national picture. In one way or another, several States are making an attempt to get these changes, but on the whole very little is being done along this line." One ray of light however comes from the same Dr. Manny, who, having carried on an investigation on changes in farm population during the past year, extending his researches over 15 States, has reported as follows: "practically all vacant habitable farmsteads have been reoccupied and in some areas, especially in the South, migrants were trying to develop subsistence farms on cutover land and other idle unimproved acreage. This is in addition to the substantial movement of city unemployed back to the farms of parents, relatives and friends. Future back-to-the-land movements will be increasingly handicapped by lack of occupiable buildings and acreage, according to most of the people who were consulted." (1).

Thus it would appear that the stampede to the land is over, in its most dangerous form at least. It now remains to be seen what the development of the new land policy of the Roosevelt administration is going to be, and whether the problems arising from the extent of the back-to-the-land movement are going to be considered per se or be simply a part of the general scheme of farm relief. It is clear however that something will have to be done quickly to relieve a situation which, according to official sources, spells failure for hundreds of thousands of people (2).

OTHER COUNTRIES.

In *England and Wales*, in spite of industrial depression, and the fall in emigration, it can hardly be said that there is any movement back to the land of persons intending to settle permanently. The number of holdings of more than one acre has in recent years been steadily falling and so, too, has the number of workers occupied on these farms. During the five years 1928 to 1932, the number of such holdings fell from 400,895 to 390,000 and the number of regular and casual workers employed thereon from 772,825 to 697,100.

The establishment of small holdings for the settlement of unemployed is not, in the opinion of the present Government, a practical plan so long as there is no means of assuring to small holders the possibility of gaining a fair livelihood. On the other hand, however, the Government has contributed towards the cost of

(1) See *Farm Population and Rural Life Activities*. U. S. Department of Agriculture Economics. Washington, D. C. Vol. VII, N. 2, April 1, 1933.

(2) U. S. Yearbook of Agriculture 1932, page 469.

providing garden allotments for unemployed town-workers, a relief measure promoted by various voluntary agencies and especially by the National Council of Social Service and the Society of Friends. In 1930-31, for instance, the Society of Friends provided such allotments for 64,000 unemployed and it hopes in 1933, from its own funds and the Government grant, to be able to provide for another 80,000 and also to begin an experiment in establishing men permanently on the land. In addition, a co-operative scheme of production and marketing will be tried with vegetables, fruit, eggs, poultry and pork products.

In spite of the almost complete stoppage of the usual migration from the country to the towns, the shortage of workers in *French* agriculture still continues.

Great efforts, for which the Central Agricultural Labour Office is largely responsible, have however been made to supply the labour required by giving employment on the land to unemployed workers from the great industrial centres.

In 1932, work was found in agriculture for 22,000 persons, of whom 90 per cent. were alone and 10 per cent. were accompanied by their families. Of this number, about 15,000 were foreigners, and only 7000, or less than one third, French Nationals. The results have, however, not been very encouraging, despite a careful selective policy in accordance with which such employment was given only to persons who were of country origin and had left it comparatively recently. Many of these workers left the farms to which they had been assigned after a very few days, during which they were of no use but rather a cause of trouble and disturbance.

In order to assist unemployed industrial and commercial workers of French nationality, who have the opportunity of returning to their native districts to take up employment in agriculture, such persons have been allowed, by a circular letter sent on 2 January 1932 by the Ministry of Labour to the Prefects, to obtain tickets at half price on the main railway systems up to 30 June 1932. The railway companies were to bear one-quarter of the cost of transport, the other quarter being refunded by the Government. The half fares are granted also for the wives and children of the married men and for their household effects.

In order to provide unemployed industrial workers with employment in agriculture such as is usually given to foreign seasonal workers, the *Austrian Government* allows for each man so placed for a period of six months a bonus not exceeding 150 schillings, which sum in case of non-specialised work is paid in its entirety to the employer boarding and lodging the worker and paying him wages from the start. In case of workers employed on beet cultivation, on the other hand, which requires a certain period of apprenticeship, two-thirds of the bonus is paid to the worker and the remainder to the employer. The results of this policy have however so far not been encouraging.

With the object of reducing the number of unemployed persons in the towns and of remedying the shortage of labour in the country districts, the *Latvian*

Government in 1932 resolved that farmers finding work for such unemployed during the winter months should receive a State subsidy of 10 Lats per month. If labourers so engaged work for a farmer during three months without a break, they receive a premium of 10 Lats, increased to 15 Lats if they give uninterrupted work for 6 months. A number of unemployed were induced to go into the country by this State subsidising of wages. In 1933, however, the financial situation did not allow of the renewal of this system of premiums.

To encourage the transfer of these unemployed to the country, the Government undertook to pay the cost of their transport by railway from the town to the place of employment. If the worker was accompanied by his family the cost of the journey for his family was also defrayed and the cost of transport of their baggage.

In 1932, the *Estonian Government* started the first experiment in that country in settling families of urban unemployed workers upon the land as small farmers. The first group to be settled consisted of 80 selected families, to whom over 1000 acres of good farming land were allotted.

The clearing of land and the necessary improvements, such as roads, ditches, fences, buildings, etc., are made by the unemployed workers themselves; under the direction of Government experts. The necessary expenses for the improvements and the wages to the workers engaged thereon are advanced out of the public unemployment relief funds.

In *Brazil*, a special fund has been established for the settlement of unemployed persons in agricultural colonies, out of which the Federal States may receive Government subsidies, provided that they submit the plans of the proposed colonies to the Ministry of Labour and choose the locality for them with due regard to climatic conditions, the quality of the land and the means of communication with consuming centres. The price of the holdings is fixed by the Ministry, or by the Federal State concerned if the colony has been established by it, account being taken of the local conditions of each colony and of the value of the land. Workers joining the colonies receive special privileges set forth in a Decree of 12 December 1930. The work of establishing the settlers may be undertaken by services approved by the Minister of Labour, or by private or religious institutions owning land suitable for settlement and authorized to receive loans.

Among the various Federal States it is especially Sao Paulo that has taken measures to place urban unemployed workers in employment in agriculture. In the first ten months of 1931, the competent service of that State transferred 47,063 workers from the capital to the interior.

In *Australia*, the *New South Wales* Local Government (Small Holdings) Amendment Bill passed in December 1932 empowers municipal councils and shires to relieve unemployment by acquiring land for the purpose of providing small holdings for settlement.

Also in *New Zealand* land settlement takes a leading place among the Government measures taken or proposed to cope with unemployment. In 1932 new legislation provided for the establishment of a rural allotment scheme whereby married men will be placed on sections of from 5 to 10 acres with a small cottage. The allotments will be distributed throughout rural districts.

The occupant of the Section will work some of the time for himself in providing his own sustenance and part of the time for a nearby farmer or anyone also who can employ him. Some part of the existing relief allowance must however be continued as it is recognized that workers who are thus moved out will not immediately be able to earn an independent livelihood.

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[This Journal, which is to appear quarterly, is the organ of the Economic Society of South Africa, the objects of which, as stated, are to ensure the thorough discussion of all economic questions affecting South Africa, and to this end to enlist the active co-operation of all persons, of whatever school of economic thought, capable of throwing light on these questions.

At this juncture in South African affairs, the appearance of such a Journal dealing with the economic issues that are affecting the country is of particular importance. Since moreover in South Africa, to quote the phrase of one of the contributors, the outlines in the field of economics "can be more easily and more clearly discerned than in the countries of Europe where conditions are more complex", it may well be that in any analysis of the various aspects of the South African economic situation some light may be thrown upon the problems that are perplexing the older countries.

Three of the articles deal with the monetary and price questions. That by Prof. S. Herbert Frankel, professor at the University of the Witwatersrand, Johannesburg, on "South African Monetary Policy" has direct reference to the position of the Union as exporter of agricultural and pastoral products, an important factor in the general situation of the national income, affected as this has been first by the maintenance and now by the abandonment of the gold standard on the part of the Union Government.

Prof. Frankel shows that the decline in the value of exports (excluding gold, and mainly pastoral or agricultural) has been the main factor in the decline in the national income which has taken place from 1929 onwards to the end of 1932. The general fall in overseas prices of agricultural products was accentuated in South Africa by the over-valuation of the South African pound due to the policy of maintaining the exchange at parity with gold. The result was that by 1931 the prices obtained for these exports had fallen by 44 per cent. below the prices of 1929, and by 61 per cent. below the 1924 level. On the other hand, as the local prices of commodities, although also showing some decline, remained high in comparison, while wages were unaltered and taxation increased, production costs for exporters were not appreciably diminished. Prof. Frankel is of opinion that the policy of maintaining the gold parity should have been accompanied by a firm policy of deflation, reducing thereby local prices and wages and other fixed charges, and thus ensuring the necessary fall in the costs of the export

industries. This policy, always difficult and unpopular, was not fully carried out, and instead a policy was embarked on of export subsidies and of large special customs duties which in reality aggravated the situation. There is now a general belief that the exchange depreciation effected last January constitutes a cure for all the economic evils of the country. In Prof. Frankel's view this is not the case, and he suggests that the real remedy may lie, now that depreciation has been effected, in bringing about a reduction in nominal wages salaries and fixed charges, thus counteracting the rise in wholesale and retail prices resulting from the depreciation. Lower costs in the export and primary industries would thus be effected. The writer does not maintain that it will be an easy matter for any government in South Africa to reduce nominal wages, but considers that it is preferable to the alternative policy of inflation with rise in the cost of living and consequent reduction in real wages, etc. Whatever policy is adopted it is essential to bring about a reduction in the real costs of the export industries and an increase in efficiency. As he says in South Africa "the agricultural industry is at present on a highly artificial price basis, and a large part of agricultural production is divorced from world price levels — a position that cannot be left unrectified indefinitely."

In accordance with the "symposium" method adopted by this Journal, this article is followed by an Addendum by Prof. Robert Leslie of the University of Cape Town, dissenting from some of Prof. Frankel's conclusions.

An article with bearing on agriculture is that by Dr. J. G. van der Horst (1), who takes as his subject the changes in the legal or institutional framework of economic activity, and maintains that the conception of ownership has thereby been definitely affected, illustrating this view from the case of a South African farmer in the Cape Province engaged in mixed farming. An account is given of the operations of the various Control Boards established from 1925 onwards, dealing with fruit, dairy produce, meat, maize, tobacco, and the writer submits that "as far as the principal agricultural products are concerned, the rights left to the owner of property are merely the right to consume it himself and the right to destroy it. The rights which give rise to its value in exchange have been, or are about to be, taken away from him and vested in Boards subject to the control of a Minister." The theme is presented with vigour and much valuable detail, but it may perhaps occur to the reader that in view of the intricacies of modern overseas marketing of agricultural products, the individual farmer may not altogether regret the loss of freedom to choose implied in regulation. Moreover in South Africa it has been largely the farmers themselves who have advocated and indeed urged these regulating measures.

The article on "Robinson Crusoe Economics" by H. M. Robinson is lively and draws an apt moral — applicable not only in South Africa — as to sound methods of capital building and upkeep of capital.

The Journal also contains book reviews, notes on official publications and reports, together with valuable lists of official publications, South African and other, a table of official Union and foreign statistics, and a bibliography of new books on economic subjects.

Among the Notes on official publications, that by Margaret L. Hodgson, on the Report of the Native Economic Commission 1930 to 1932, is of special interest, as calling attention to the limitations, as well as to the value of the Report, the main recommendations of which, as regards the Native Reserves and the Natives on European

(1) The rehabilitation scheme recently proposed by Dr. van der Horst for placing the farming community once more on a self-supporting basis by means of a Government issue of land stock redeemable over 48 years has attracted considerable attention in the Union.

Farms, have already been outlined in this Review (1). Miss Hodgson, who is also joint author of two recent publications on Basutoland and the Bechuanaland Protectorate, and has an intimate knowledge of Native problems, stresses in regard to the admittedly needed reforms in the "labour-tenancy" system obtaining for Natives on European farms, the more progressive view contained in the Addendum Report. According to the proposals there made, an alternative system should be introduced, whereby unutilised land held by Europeans might, under the control of local committees, be leased to natives on a cash rent basis, subject to stipulations as to proper cultivation, including adequate fertilising. Among the advantages of this would be that the interest of Natives in improved agriculture would be stimulated, and as their bargaining power in regard to their labour would also be increased, the conditions of "labour-tenancy" would in all probability also improve].

C. H.

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(1) Previous list June 1932. To be continued December 1933.

(2) List of abbreviations: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); hebdomadal. (weekly); int. (home price); irr. (irregular); mens. (monthly); n° (number); N. S. (new series); q. (daily); sem. (half yearly); s. (series); trihebd. (every three weeks); v. (volume); trim. (quarterly).

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FARM ECONOMICS

Extent of the Representative Character of Farm Accountancy Statistics.

If a careful study be made of the tables contained in the publication *Farm Accountancy Statistics*, it will be recognised that the sources drawn upon for their compilation have been extensive and varied, while throughout based upon actual farming experience. The fundamental object in making this study of farm accountancy results has been to present a true picture of the farm in all the detail of its activities and circumstances. In other words, farm accountancy is the script corresponding to the vital phenomena of the farm. The figures appearing in the tables will make clear the general tendencies, and will reflect the position and the organisation of agriculture in the countries under review.

It may be urged against the statistics established in this work, that they can only be published one or two years after the closing of the accounts under review. It is not however intended that they should be regarded as a single source of information ; if supplemented by other more recent statistical information they render possible forecasts relating to the year in course, and they may become of considerable value in the sphere of international agrarian policy.

The objection may be made that the total number and area of the farms coming under the survey of the Farm Accountancy Offices are not large enough to make the results really representative (1). This is readily admitted but on

(1) If N is any number whatever of observations, and if we take $\frac{b-a}{n} = \Delta x$, where b is the maximum and a the minimum of a certain observed value, and n is any number whatever, the N observations may be distributed over n classes, for each of which the observed values are

$$\geq (a + \Delta x) \quad (a + 2 \Delta x) \quad \dots \quad (a + n \Delta x)$$

If y_1, y_2, \dots, y_n represent the number of observations corresponding to each class, the approximate mean of the observed values is expressed by.

$$\mu = \frac{(a + \Delta x) y_1 + (a + 2 \Delta x) y_2 + \dots + (a + n \Delta x) y_n}{y_1 + y_2 + \dots + y_n}$$

taking into account the fact that the larger n is, the closer is the approximation. The preceding formula then becomes $\mu = a + \Delta x \frac{y_1 + 2 y_2 + \dots + n y_n}{N}$ from which it results that μ does not vary if N is replaced by however small a fraction of N . Actually if we take $N = m x$,

$$\mu = a + \frac{\Delta x}{x} \left(\frac{y_1}{m} + \frac{2 y_2}{m} + \dots + \frac{n y_n}{m} \right)$$

To obtain an approximate average of N observations, it is accordingly necessary and sufficient to consider in each class a number of observations respectively proportional to y_1, y_2, \dots, y_n .

the other hand attention may be called to the fact that they are sufficiently representative to make the values so obtained a true reflection of the agricultural situation in the majority of the countries under consideration. The diagrams established by the use of the averages of 2 or 3 successive years are proof of this. The concurrence of the dynamic tendencies is striking even at first sight, and it may be at once affirmed that these tendencies are capable of being used as the basis of fruitful studies of a practical kind.

The number of farms coming under the survey of the Accountancy Offices is increasing, each year a certain number of those dealt with in the previous year fall out, but on the other hand new farms present themselves.

If the average of a large number of observations, collected on any principle whatever, be established, it is found that few of the individual results correspond to the average. But the differences follow each other with a certain regularity. To find the law, all differences are added together without taking the sign (positive or negative) into account, the total is then divided by $\sqrt{n(n-1)}$, n being the number of observations. The quotient is multiplied by a constant, the Mitscherlich factor 0.845, and the "probable error", or "probable variation" (r) is obtained (1). The frequency of the appearance of this last is governed by the GAUSS law, expressed by the symmetrical curve which bears his name.

Pauli (2) after Mitscherlich employed the formula :

$$r = \frac{\text{Sum of the differences } [\pm v]}{\sqrt{n(n-1)}} \times 0.845$$

to show that the calculations of net return and production costs are subjected to the law of probabilities. Pauli chose, among the accountancy results of 1909, a series of observations corresponding to the group of dairy farms in Switzerland.

(1) This formula has been established as follows :

$$\left. \begin{array}{l} \text{taking } t = \frac{[\Sigma]}{n} \\ \text{taking } m = \sqrt{\frac{[\Sigma^2]}{n}} \end{array} \right\} t : m = 1 : 1.2533 ; m = t.1.2533$$

$t.1.2533$ is an approximate value only of m , but the calculation is more quickly made than with the exact formula $\sqrt{\frac{[\Sigma^2]}{n}}$. $m : r = 1 : 0.6744898$, the probable error = $0.6744898 \sqrt{\frac{[\Sigma^2]}{n}}$. Replacing $\sqrt{\frac{[\Sigma^2]}{n}}$ by $\frac{[\Sigma]}{n} 1.2533$, the following useful formula is obtained :

$$\frac{[\Sigma^2]}{n} 1.2533 \times 0.6744898 = \frac{[\Sigma^2]}{n} 0.845$$

as $t.1.2533$ is only an approximate value of m , $\frac{[\Sigma]}{n} \times 0.845$ is also only an approximate value of r , but it is sufficiently accurate for practical purposes.

(2) Produktionskostenberechnungen in bäuerlichen Betrieben, Thunen Archiv, 1913, Jena.

The following table shows the costs of production per 100 kg. of milk and the "probable variation" (r).

FARMS	Serial Number of the farms	Average of 5 observations		Average of 10 observations		Average of 15 observations	
		Swiss francs	r	Swiss francs	r	Swiss francs	r
<i>Farms on which mixed forage crops are grown.</i>							
<i>(a) Receiving the skimmed milk in return</i>							
Average of first 5 farms. .	(15-292)	17 34	± 2 70	17 46	± 1 77	17 86	± 2 43
" 5 following " . .	(296-426)	17 59	± 1 27				
" 5 " " . .	(511-603)	18 65	± 4 15	18 20	± 3 21	17.23	± 2 75
" 5 " " . .	(604-727)	17 74	± 2 76				
" 5 " " . .	(791-827)	18 05	± 3 42	16 97	± 2 93		
" 5 " " . .	(829-841)	15 89	± 2 84				
" 5 " " . .	(842-857)	14 22	± 3 99				
<i>(b) Not receiving skimmed milk in return</i>							
Average of first 5 farms.	(78-373)	18 03	± 1 66	17 95	± 2 77	18 06	± 2 31
" 5 following " . .	(391-432)	17 88	± 3 23				
" 5 " " . .	(457-774)	18 26	± 2 61	18 02	± 3 33		
" 5 " " . .	(731-838)	17 78	± 4 43				

When an average is taken on five farms, the *probable variations* of individual results show great differences. The case is the same if an average is based on 10 farms. It is only when a series of at least 15 individual results of farms of the same type is available that the *probable variations* balance out in a satisfactory manner, and that the average of at least 15 results coming from farms of similar type makes it possible to draw definitive conclusions on any one point and to apply them in practice.

When the groups are less homogeneous, when they cover the farms of the whole of a country and not merely the farms of a single system of production, a much greater number of farms are needed to obtain the most probable averages (*or in other words those which show only very slight modification on the addition of the results of other farms*).

The Accountancy Offices make this experiment every year. The Secretariate of the Swiss Peasants, at Brougg, in establishing the following table, has

shown that when groups consist of at least 100 farms, the averages are no longer modified to any perceptible extent.

Number of farms	Net return in % of the assets in 1922	Household expenses per day of man's board in 1922
84	— 1 90	2 20
114	— 1 71	2 42
154	— 1 73	2 43
194	— 1 83	2 44
234	— 1 74	2 43
274	— 1 65	2 44
313	— 1 60	2 45
400	— 1 62	2 48

We have ourselves applied the experiment of Pauli to 75 large Polish farms of which the individual results for 1929-30 were available, the following table shows the variations thus obtained:

$$\left(r = \frac{\text{sum of differences } [\pm v]}{\sqrt{n(n-1)}} \times 0.845 \right):$$

	Gross Return per ha (Average of 30 farms)	r	Gross Return per ha (Average of 45 farms)	r	Gross Return per ha (Average of 60 farms)	r
30 farms (1 to 30) . . .	465 84	± 139 52	452.95 468 82 432.92	± 134 03 ± 127 63 ± 142 21	466.38 452.85	± 135.44 ± 135.62
30 " (10 to 45) . . .	449 91	± 121 54				
30 " (31 to 60) . . .	466.92	± 133 68				
30 " (46 to 75) . . .	435 79	± 152 02				

The average of 60 individual results of the most diverse farms has to be taken to obtain the same *probable variation*.

It is thus necessary to take in Switzerland, at least, 100 farms out of 238,470, and in Poland 60 large farms out of 30,009, or in other words, 4 per 10,000 in Switzerland and 20 per 10,000 in Poland to obtain the most probable average. Now this figure is exceeded: in Switzerland we have accountancy results for 501 farms out of 238,470, or 21 per 10,000; in Poland for 76 large farms, or 25 per 10,000.

Let us assume that, to obtain the most probable averages, results must be available for at least 4 peasant farms per 10,000 and at least 20 large farms per 10,000, as being less numerous, and let us see what is obtained for each country,

taking the average of a table the values of which are only slightly modified from one year to another, *viz.*, the table of capital invested in agriculture.

It appears from this table that when the results are available of at least 3 to 4 peasant farms and of at least 10 to 20 large farms, per 10,000, the averages of the capital investments per hectare and expressed as percentage show a very slight variation only from one year to another. Whether an addition or a subtraction of other farms is effected, the average farm thus obtained preserves exactly the same physiognomy.

This amounts to saying that, although no farm is in all points similar to the farm most resembling it, the larger number of the extreme cases of disparity have been included under this total number of farms. The greater number of the individual results must be very close to the mean or average. In fact, if size classes of gross return are established, the following significant table is obtained for the 76 Polish large farms referred to above.

Size-classes of Gross Return

(zlotys per ha)

	100	100 to 200	200 to 300	300 to 400	400 to 500	500 to 600	600 to 700	700 to 800	800 to 900	900 to 1000
Number of farms . . .	1	7	13	12	12	13	11	5	1	1
Total arable area in ha. .	258	5318.70	4201.40	7378.10	7750	7012.30	5379.20	2392	1425	635.30
Arable area in % of total .	0.61	12.56	9.92	17.42	18.30	17.97	12.70	5.65	3.30	1.50

The average gross return (arithmetical mean) is 447.13 zlotys per hectare.

In view of the preceding tables the following statement made by the Secretariate of the Swiss Peasants, at Brougg, may serve also as a statement of our own experience :

“ Although every year the investigations on profit earning capacity include a certain number of new farms while others drop out, the mean composition of the farms under review, provided that the number is sufficient, remains the same in the most diverse respects (area, degree of intensity of the farming, etc.). It is accordingly possible to establish sound comparisons, equally between the general average as between the averages of each group of farms. Every annual average pays the part of *relative average* of the whole of the country and may be compared with that of another years. It is in this way that the averages of the Secretariate enable an idea to be formed which is increasingly exact in respect of the true conditions of agriculture ”.

Hence it may be said that our averages, which are nearly all based on an adequate number of farms, will give an increasingly exact idea of the true conditions of European agriculture, and even of world agriculture, once the field of our invest-

FARMS	Number of farms			NUMBER OF FARMS INCLUDED in the in ‰ of the total farms of each country		
	1927-28	1928-29	1929-30	1927-28	1928-29	1929-30

(A) COUNTRIES FOR WHICH THE NUMBER OF FARM

(a) <i>Peasant farms.</i>						
Netherlands	1987	2201	2715	70	77	95
Denmark	573	599	618	28	30	31
Germany	1637	2289	2714	3	4	5
Switzerland	500	504	501	21	21	21
Austria	397	743	896	9	17	21
Poland	804	855	793	2.4	3	2.4
Lithuania	—	95	100	—	3	3
Latvia	117	132	102	5	6	4
Estonia	250	260	260	19	19	19
Finland	414	474	524	17	19	21
Norway	190	172	191	6	6	6
Sweden	286	242	295	10	8	10
(b) <i>Large farms.</i>						
Denmark	153	155	167	34	34	37
Germany	656	691	806	37	39	45
Finland	75	72	80	20	19	21
Sweden	96	113	125	81	95	106
Czechoslovakia	26	30	35	8	10	11

(B) COUNTRIES FOR WHICH THE NUMBER OF FARMS IS NEARLY

(a) <i>Peasant farms.</i>						
Czechoslovakia	221	228	202	1.4	1.4	1.3
Hungary	34	—	104	—	—	—
(b) <i>Large farms.</i>						
Cambridge	—	12	162	—	—	—

(C) COUNTRIES FOR WHICH THE NUMBER OF FARM

(a) <i>Peasant farms.</i>						
Bulgaria	—	5	4	—	—	—
Rumania	—	63	13	—	0.2	0.03

Capital invested in gold francs per ha.			Landlord's capital in % of capital invested			Tenant's capital in of capital invested	
1927-28	1928-29	1929-30	1927-28	1928-29	1929-30	1927-28	1928-29

IS SUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES.

—	—	—	—	—	—	—	—
3299.41	3247.96	3227.74	75.63	75.98	74.37	24.37	24.02
—	—	—	—	—	—	—	—
7048.73	7748.97	7645 —	77.58	86.18	76.56	22.42	23.82
1762.67	1646.34	1706.23	68.58	69.82	69.82	31.42	30.18
1814.02	2253.43	2272.79	83.69	85.54	85.91	16.31	14.46
—	1057.04	997.81	—	73.90	73.03	—	26.10
645.83	609.58	613.28	63.88	63.29	65.51	36.12	36.71
567.44	573.64	585.83	65.49	65.59	66.59	34.51	34.41
1155.29	1251.71	1296.17	75.31	75.69	76.10	24.69	24.31
5448.30	5446.07	5047.52	76.12	76.43	76.91	23.88	23.57
2209.12	2197.82	2426.29	67.85	66.59	68.88	32.15	33.1
2733.42	2670.66	2697.10	78.94	78.48	77.46	21.06	21.52
—	—	—	—	—	—	—	—
1101.79	1212.58	1236.32	75.68	76.51	76.76	24.32	23.49
2155.68	2152.16	2207.64	65.75	66.10	67.67	34.25	33.90
1909.58	1961.02	2188.32	66.14	65.20	67.77	33.86	34.80

SUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES.

2456.97	2699.98	2883.42	70.44	71.78	72.29	29.56
2512.19	—	2614.51	82.20	—	83.84	17.80
—	2606.64	1913.36	—	65.02	67.57	—

IS INSUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES.

—	2197.57	1777.48	—	83.12	76.30	—	16.86
—	756.12	2037.86	—	89.09	78.19	—	10.91

FARMS	Number of farms			Number of farms included in the 10 % of the total farms of each country		
	1927 28	1928 29	1929 30	1927 28	1928 29	1929 30

(A) SUB-GROUPS FOR WHICH THE NUMBER OF FARMS

(a) <i>Peasant Farms</i>									
		Averages	I	—	122	124	—	—	—
Austria	{		III	—	127	152	—	—	—
			IV	—	124	172	—	—	—
			V	—	105	113	—	—	—
			I	—	33	31	—	—	—
Czechoslovakia	{		III	—	195	171	—	—	—
			I	—	147	159	—	—	—
Sweden	{		III	—	95	136	—	—	—
			II	—	73	110	—	—	—
Switzerland			II	—	90	136	—	—	—
(b) <i>Large Farms</i>									
Denmark		Averages	I	—	155	167	—	—	—
Finland			I	—	72	80	—	—	—
Sweden			III	—	113	124	—	—	—

(B) SUB-GROUPS FOR WHICH THE NUMBER OF FARMS IS NEARLY

(b) <i>Large Farms.</i>								
Württemberg	Averages	II	—	47	20	—	—	—
Czechoslovakia	"	III	—	26	24	—	—	—
Switzerland	"	IV	—	17	11	—	—	—

(C) SUB-GROUPS FOR WHICH THE NUMBER OF FARMS IS

(a) <i>Peasant Farms.</i>						
Rumania Averages III	—	33	13	—	—	—

Capital invested in gold francs per ha			Landlord's capital in % of capital invested			Tenant's capital in % of capital invested		
1927 28	1928 29	1929 30	1927 28	1928 29	1929 30	1927 28	1928 29	1929 30

IS SUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES

—	1270 29	1310 19	—	71 20	71 59	—	28 80	28 41
—	2263 98	2256 07	—	66 89	68 36	—	33 11	31 64
—	3141 98	3194 64	—	70 15	69 54	—	29 85	30 46
—	996 11	1007 16	—	74 06	73 74	—	25 94	26 26
—	2385 36	2361 69	—	69 95	69 79	—	30 05	30 21
—	2746 33	2980 37	—	72 01	72 67	—	27 99	27 33
—	2208 63	2237 77	—	66 50	68 39	—	33 50	31 61
—	2184 65	2573 01	—	66 69	69 22	—	33 31	30 78
—	2750 02	2515 85	—	71 17	70 89	—	28 93	29 11
—	7156 —	7442 53	—	76 50	75 58	—	23 50	24 42
—	2670 66	2697 10	—	78 48	77 46	—	21 52	22 54
—	1212 58	1236 32	—	76 51	76 76	—	23 49	23 24
—	2152 16	2207 64	—	66 10	67 67	—	33 90	32 33

SUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES

—	2193 53	2221 26	—	72 28	71 75	—	22 72	25 25
—	2040 62	2194 35	—	65 95	67 92	—	34 05	32 08
—	11077 —	11307 88	—	76 02	74 85	—	23 98	25 15

INSUFFICIENT TO YIELD THE MOST PROBABLE AVERAGES

—	1266 33	2037 86	—	77 20	78 19	—	22 80	21.81
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igations is extended to the whole globe. Confirmation of this is found also in the table on which are inserted the percentage of the arable area of the farms included in our Survey in relation to the percentages of the cultivable area of all the farms of each of the countries under consideration, the totals being taken from the International Yearbook of Agricultural Statistics. The series so presented approach so closely as regards composition as almost to coincide. Actually in 1929-30, when the Scottish results were given in addition to those of Hertfordshire, the percentages of the area reserved to cereals are identical for the farms included in the Institute's Farm Accountancy publication and for all the farms of Great Britain, whereas in 1927-28 and 1928-29 the difference was considerable, as shown by the following figures :

	Area reserved to cereals in percentage of the total area	
	Farms included in <i>Farm Accountancy Statistics</i>	All farms of Great Britain
Great Britain		
1927-28 (not including the Scottish farms)	68.09	45.62
1928-29 (not including the Scottish farms)	56.51	45.16
1929-30 (including the Scottish farms)	44.83	45.60

For Czechoslovakia and Finland the modifications taking place in 1929-30 in the percentage composition of the arable area in either country are shown equally by the figures of the two series.

	Area reserved to cereals in percentage of the total	
	Farms included in <i>Farm Accountancy Statistics</i>	All Farms of the country
Czechoslovakia		
1927-28	58.33	59.16
1928-29	58.84	60.66
1929-30	60.23	63.35
Finland		
1927-28	35.91	38.34
1928-29	34.93	38.42
1929-30	34.84	34.76

Both series of figures show clearly that the sowings, in 1929-30, increased in Czechoslovakia and have diminished in Finland.

Another fact may be quoted fully confirming the hypothesis. In 1930 as the imports of chemical fertilisers into Poland showed a considerable decline it was concluded that the farmers had reduced their purchases of fertilisers; our statistics based on farm accountancy results leave no doubt on this subject.

	Purchases of fertilisers		
	in zlotys per ha	in % of cost of production	in % of gross return
Poland			
1927-28 (804 farms)	22	3 78	3 75
1928-29 (855 ")	26	3 93	4 44
1929-30 (793 ")	21	3 28	4 21
1930-31 (739 ")	10	1 74	2 64

These statements carry conviction. The same may be said of the result of any study of the diagrams showing the average composition of the area and of capital invested during two or three successive years.

Although the number of farms coming under the survey of the Accountancy Offices of certain countries, for example the Danubian countries, are insufficient for the obtaining of reliable averages, it would not be desirable to omit the results supplied by those Offices. The Offices have been in existence for a few years only : the field of their investigations is gradually becoming enlarged, and the day is no doubt not far distant when the number of farms submitting their accounts will be sufficiently large for the average composition to come out, as in other countries, the same in the most diverse respects. For the present, the results of these farms may be used, with due reserve, for the study of certain special features presented by the farm undertaking in these countries, since it is admitted that these farms belong to a group sufficiently widely represented in the country, and are in consequence representative by selection.

These general considerations may here reach their conclusion ; but the reader's attention may be again called to the fact that in order to draw conclusions, without risk of error, from the study of the statistics submitted, there must be some knowledge of the conditions under which the figures have been obtained.

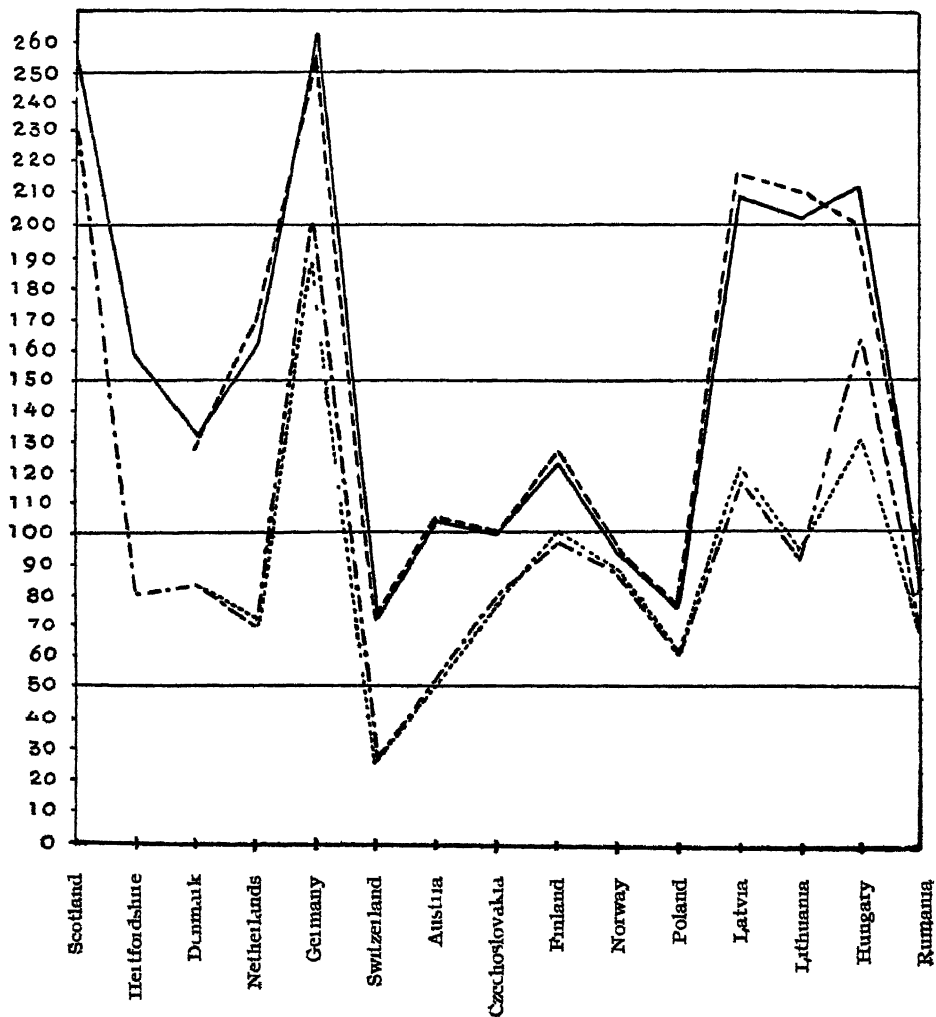
DISTRIBUTION OF LANDS

Area under
cultivation
in 1929-30

Area under
cultivation
in 1928-29

Arable area
in 1929-30

Arable area
in 1928-29

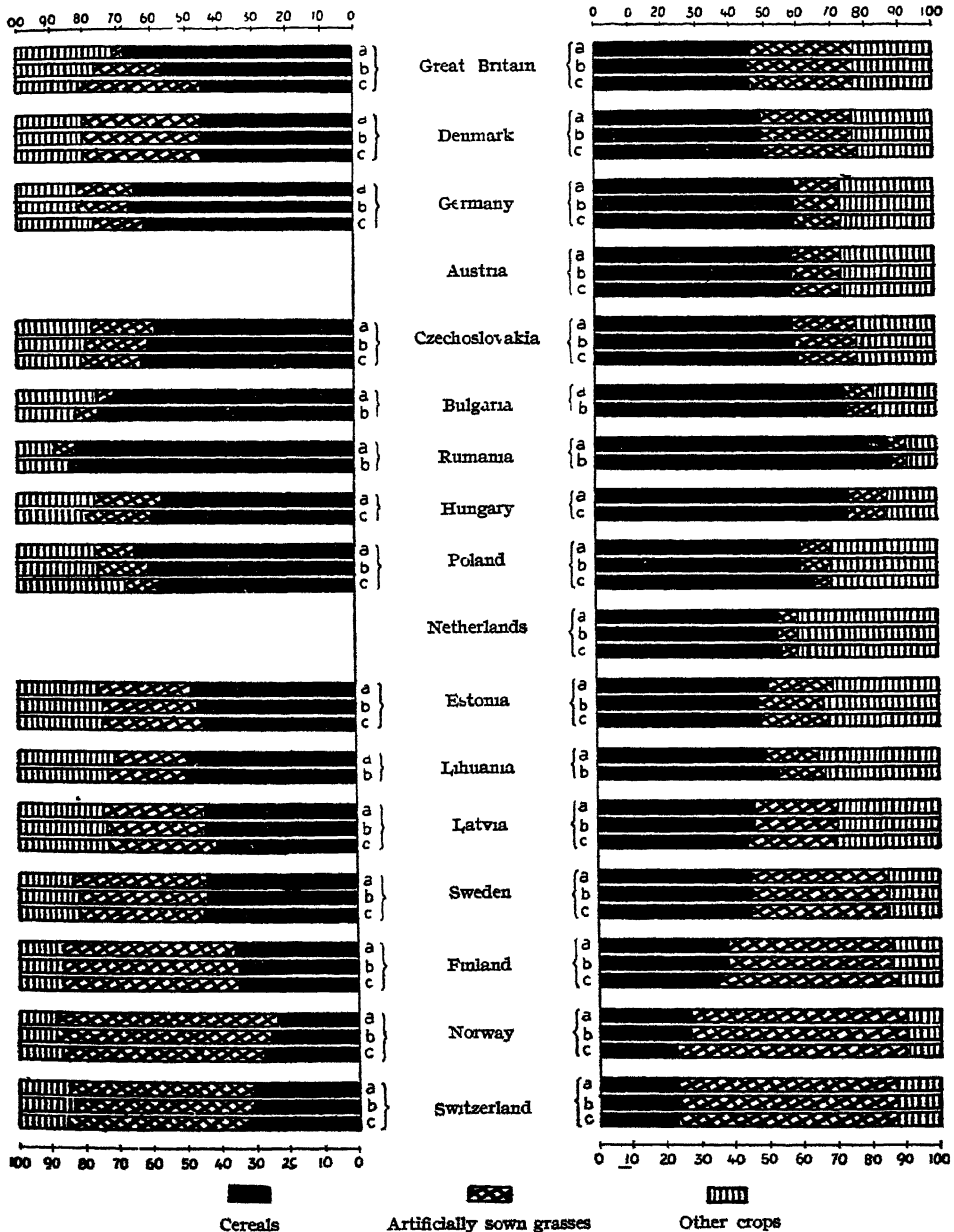


The area under cultivation of Czechoslovakia in 1929-30 is equal to 100.

PERCENTAGES OF ARABLE LAND TAKEN FROM THE *INTERNATIONAL YEARBOOK OF AGRICULTURAL STATISTICS* AND AVERAGE PERCENTAGES OF THE ARABLE LAND OF THE FARMS INCLUDED IN *FARM ACCOUNTANCY STATISTICS*

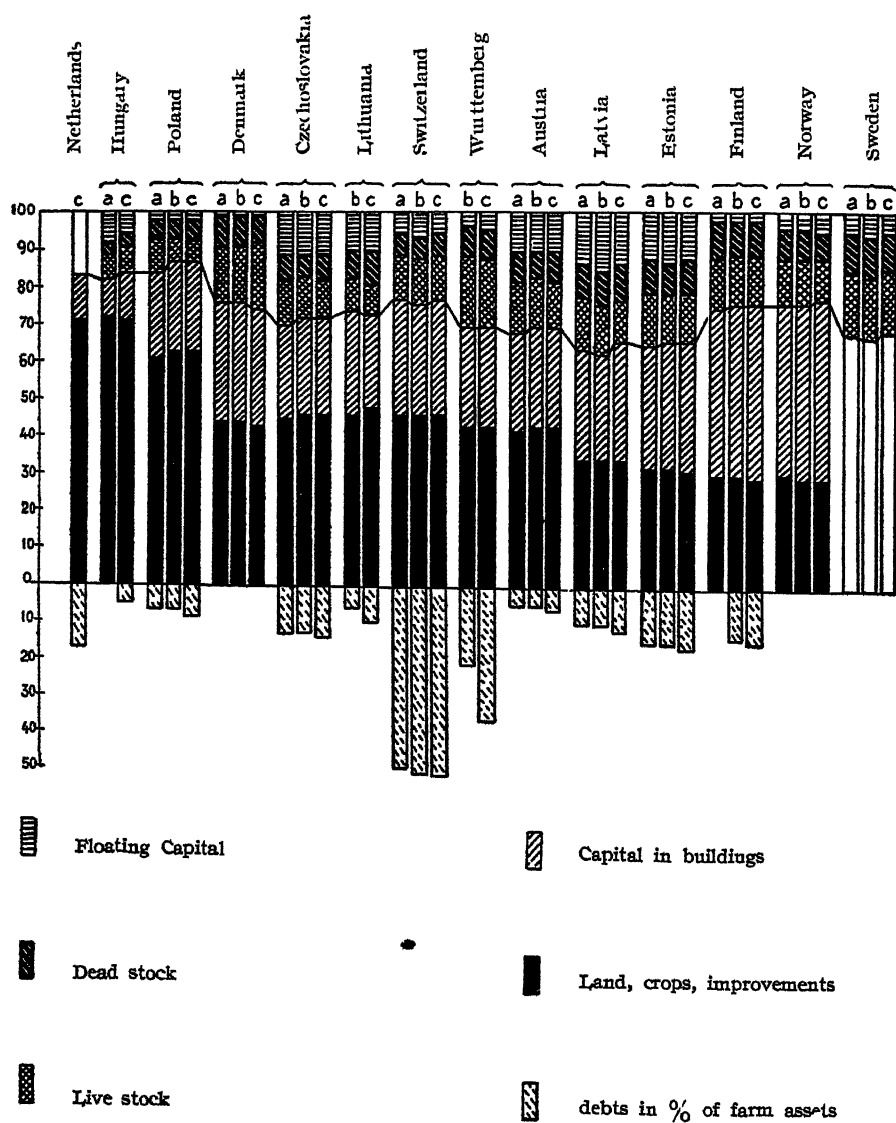
Farms included in *Farm Accountancy Statistics*

All farms of the country



a = 1927-28; b = 1928-29, c = 1929-30.

PERCENTAGE COMPOSITION OF FARM ASSETS



a = 1927-28; b = 1928-29; c = 1929-30.

CO-OPERATION

Agricultural Co-operation in Lithuania.

I. — HISTORICAL SURVEY

The co-operative movement in Lithuania dates from the second half of the nineteenth century, and the first organisation of a co-operative character was a consumers' society founded in 1869 at Vilnius by some State officials. The first savings and loan society was formed in 1871, and an agricultural society was founded at Kaunas about the same time by some large farmers. These societies, however, were organised, for the most part, by Russian officials or by large landed proprietors, and the mass of the Lithuanian population had no part in them. It was, in fact, only during the nineties of last century that the people of Lithuania began to take part in the co-operative movement, and in the first place in consumers' societies. Up to 1904 the number of these co-operative societies was quite small, and it began to increase, as did also the number of the co-operative credit societies, only after 1905, when the prohibitions affecting the Lithuanian press were suspended by the Russian Government, and the severity of the political regime became generally speaking relaxed in Russia. In 1908 a special society for the encouragement of co-operation was organised at Vilnius, the object of which was to diffuse the idea of co-operation to advise and assist societies in process of formation and to give information, etc., to societies already in existence. In 1911 a periodical, entitled "Bendrija", especially devoted to co-operation, began to appear. The development of the co-operative movement was however hampered before the war by the measures adopted by the former Russian authorities by which the societies were not permitted to group themselves in unions: and it was only at the beginning of the war that permission was granted, at Šiauliai, for the organisation of a regional union of co-operative consumers' societies. The war however prevented the actual functioning of this Federation.

On the eve of the war there were, in round figures, on the present territory of Lithuania, apart from the territory of Memel, 200 consumers' co-operative societies, 100 co-operative credit societies, and 80 agricultural co-operative societies. The consumers' societies were instituted for the most part in the small towns; the majority of their members were cultivators to whom the societies supplied, so far as possible, requisites of all kinds. The agricultural co-operative societies were for the most part farming societies the main object of which was to encourage the development of agriculture. The most important of these were those of the large farmers. Among the agricultural societies founded by the small or family farmers, the "Žagė" (or The Ploughshare), founded in 1907 at Mariampolė, should be regarded as one of the most important of the agricultural and trading co-operative societies of the pre-war period. In 1913 there was a membership of 1,095 members, with 7 entrepôts and 20 warehouses; in the same year sales of commodities amounted to 300,000 roubles or 150,000

dollars. Another large agricultural society "Mariampoles Ūkininkų Draugovė" had in 1913 as many as 22 branches. Its main object was the encouragement of technical progress in farming; its trading operations were of small extent. It should be added that in 1912-14, several co-operative dairies, worked by hand, were established.

In the course of the European war Lithuania was laid waste, and nearly all the property of the co-operative societies, land, buildings, equipment, etc. was destroyed. Some consumers' societies only were able, during the German occupation, to carry on a much reduced activity.

With the proclamation of the independence of Lithuania in 1918 a new chapter in the history of Lithuanian co-operation opened.

The provisional Government devoted attention to co-operation, and in 1919 a special Department of co-operation was organised under the Ministry of Commerce and Industry, the Ministry itself being later incorporated in the Ministry of Finances. The purpose of this Department was to establish conditions favourable to the development of co-operation, by drafting legislative measures on co-operative societies, by publishing model rules, etc. On 30 January 1919, a law was promulgated on the co-operative societies and their Unions by the terms of which all that was required for the constitution of a co-operative society was simple registration whereas before the war a special permit had always been necessary. Freedom to establish unions was also confirmed by the law. After the enactment of this measure the development of the co-operative movement went on very rapidly. The first to be organised were the consumers' societies, a fact which is explained by the scarcity and dearness of commodities at that time in Lithuania. After 1922, that is, after the introduction of a stable currency, rural co-operative credit societies, agricultural societies and co-operative dairies began to be organised.

Up to 1923 conditions were not favourable to the development of agricultural co-operation, as the currency had been liable to perpetual fluctuations; up to the time of the introduction of the stabilised national currency ("lita" = 1/10 gold dollar) in October 1922, German money was circulating in Lithuania. The sale of agricultural products had also been an easy matter. In 1923 the situation changed: Lithuanian agriculture was by that time no longer suffering from war conditions, and considerable quantities of exportable agricultural products began to depress the home market, while supplies of foreign products were constantly increasing on external markets. Lithuanian farmers were thus compelled to organise the co-operative sale of their products and to give attention to the improvement of quality in order to secure an external market and to sustain the competition of other exporting countries. To effect such ends, agricultural co-operative societies, co-operative dairies, etc., were founded.

It should be noted that the agrarian reform, in consequence of which the number of small farmers in Lithuania became larger, has not been without influence on the rapid development of agricultural co-operation; it is, in fact, the small farmers who seem to have the more aptitude for co-operation, which is, as the Lithuanian small farmer is well aware, the essential condition of the material and moral wellbeing of any individual.

II. — THE LEGAL BASIS OF LITHUANIAN CO-OPERATIVE SOCIETIES.

With the exception of the Territory of Memel where the German law of 1889 on co-operative societies is still in force, the co-operative societies in Lithuania are regulated by the law of 30 January 1919, to which on 12 November 1929 an amendment was made relating to the liability of members, and an addition in respect of the supervision and inspection of societies and their unions.

By this law the name of co-operative society designates "a society with a variable membership and share capital, carrying out activities under a special name and with the object of increasing the material and moral welfare of its members by the organisation of the work jointly of its associates and of its various economic institutions". The formation of a co-operative society does not require a special authorisation; it is enough to forward the rules of the society to the Inspection of Establishments and undertakings submitting accounts for public audit at the Ministry of Finances, for examination and subsequent registration. From the date of registration of the rules the society becomes a corporate body. Following registration the founders summon a meeting which constitutes the society and proceeds to the election of the administrative organs.

The management of the business of the co-operative society is in the hands of the general meeting, of the Administrative Council and of the Supervisory Council, should this last be provided for in the rules. Each member of the society has one vote at the general meeting, even though he holds more than one share. This vote cannot be transferred by him to another person. The Administrative Council must, in the course of the four months following the end of the financial year, summon the general meeting to discuss and approve the activity of the society, its statement of receipts and expenditure, and its profit and loss account. The accounts and the position as regards receipts and expenditure of the society must be examined by the audit Committee elected by the general meeting, and the result of this examination must be communicated subsequently to the meeting. This same Committee of audit must also examine into the management of the property of the society, and the work carried out by it, at least once a year; for this purpose it may call upon the Administrative Council and the Supervisory Council to supply all the information necessary. It may be noted that the Inspection of establishments and undertakings controls, through its inspectors, the activity of co-operative societies and ascertains if their activities are being carried on in accordance with their rules.

The liability of the members in respect of the liabilities of the society does not exceed the amount of their shares, or, in addition, a fixed sum as stated in the rules. By the terms of the law a member cannot withdraw from the society before the last day of the financial year, and then only on condition of having given notice three months in advance. Members withdrawing are liable, jointly and severally with the remaining members, for the liabilities of the society undertaken before their withdrawal, for one year dating from the day of their resignation, unless a longer period is prescribed in the rules. To meet any losses that may be experienced by the society, a reserve fund must be formed, into which at least one fourth of the annual profit must be paid; these first charges

on the net profit in favour of the reserve funds are made up to the value of the share capital; the members' dividend may not exceed 8 per cent. of the net profit.

Certain fiscal exemptions are granted in Lithuania to co-operative societies and their unions. All co-operative credit societies and all co-operative insurance societies as well as co-operative labour societies and consumers' societies, provided the share capital does not attain 50,000 *litas*, are exempt from license fees in virtue of former Russian laws still in force. Up to 1930 the Lithuanian law relating to taxes on incomes from commerce, manufacture, banking and trades, exempted from the payment of these taxes unions of co-operative societies of all types, all co-operative credit and farming societies, and all consumers' societies provided that the share capital in any case was less than 50,000 *litas*, as well as all co-operative societies doing business only with their own members, even if possessing share capital in excess of 50,000 *litas*. Since 1931 exemption from payment of the income tax has been granted to co-operative societies and unions only in cases where the share capital was less than 50,000 *litas*; societies and unions possessing share capital of 50,000 *litas* or more are not exempted, with the exception of those limiting their activities to their own members; those not exempted are liable to a tax amounting to 8 per cent. of the net profit. Other undertakings and firms which are under the obligation of communicating their statements of receipts and expenditure to the Ministry of Finance must pay 16 per cent. of the net profit. Some classes of co-operative societies further benefit by certain exemptions in respect of payment of stamp duties.

III. — CO-OPERATIVE AGRICULTURAL SOCIETIES (PROPERLY SO CALLED), CO-OPERATIVE MARKETING SOCIETIES AND SOCIETIES FOR THE SUPPLY OF REQUISITES.

As already stated (see Heading I) the first societies to be organised in independent Lithuania were the consumers' societies. Nearly all these societies adopted the model rules, published in 1919 by the Department of Co-operation. By the terms of these rules, the object of consumers' societies is not merely "to supply their members with the various consumption commodities and requisites for their work", but also "to assist members in organising the sale of their products and in other ways". As the greater number of the members of these consumers' societies are small or family farmers, the supplies required are not merely articles for their own consumption but also farm requisites, fertilisers, seeds, concentrated feeding stuffs, farm implements, etc. In addition the society buys some part of the product of their labour. It will thus be seen that before the appearance in 1923, of the farming societies, the co-operative supply of farm requisites and, in part, the joint sale of farm products, were in the hands of the consumers' societies and their unions. The most important among these was the "Lietuvos Kooperacijos Bendrovių Sąjunga" — the Union of Lithuanian Co-operative Societies — founded in 1920.

Organisation of the farming societies began definitely in 1923. A large number of these did not regard themselves as trading societies, and were registered, in virtue of the law relating to associations not organised for profit, at the

office of the competent District head. By the terms of the rules, the purpose of a farming society is to encourage the technical progress of agriculture by diffusing information on the scientific methods of agricultural production, by organising lectures and exhibitions, etc. Besides these purely educational purposes, the object of these societies is to assist their members and other farmers in the purchase of farm machines and implements, breeding animals, seeds and fertilisers, in making suitable installations for the grading of cereals, drying of fruit, service stations, etc. The financial structure of these societies has not been in any way properly adapted to all these purposes, and consequently when trading operations were entered upon, the unsuitability of the societies became recognised and it became necessary to give them a structure resembling that of the consumers' co-operative societies. The agricultural trading societies purchased from farmers the product of their farming and sold them fertilisers, and farm machines and implements. Some of them possessed warehouses similar to those belonging to the consumers' societies. In many localities, these societies were working side by side with the consumers' societies, which were, in part, carrying on identical trading operations. The resulting overlapping in the sphere of co-operative purchase of farm requisites retarded the development of co-operative agricultural trading societies. In order to eliminate this overlapping, the re-organisation of the two types of societies was undertaken in 1931. Amalgamation was effected of the consumers' societies and the farming societies working in the same localities and carrying out in part identical trading operations. The other organisations were left standing but under the new designation of "co-operative agricultural societies" (*žemes ūkio kooperatyvas*) in place of "farming societies" and consumers' societies.

The Union of the co-operative consumers' societies – the "Lietuvos Koopecracijos Bendrovių Sąjunga" – amalgamated with the Union of Lithuanian Co-operative Agricultural Societies – "Lietuvos Žemes Ūkio Kooperatyvų Sąjunga". The new Union took the name of "Lietuvos Žemes Ūkio Kooperatyvų Sąjunga", abbreviated to "Lietūkis". The members of the Union of Co-operative Consumers' Societies were affiliated with the "Lietūkis".

At the present time the "Lietūkis", founded in 1923, is the only union of co-operative societies for purchase and sale. Up to 1929, the farming societies were grouped in two Unions, the Farmers' Union or "Lietuvos Ūkininkų Sąjunga" (from 1923 onwards the Union of Farmers' Co-operative Societies or "Lietuvos Ūkininkų Kooperatyvų Sąjunga") and the Union of Lithuania Agricultural Co-operative Societies or "Lietuvos Žemes Ūkio Kooperatyvų Sąjunga". This latter Union is a purely co-operative organisation, whereas the "Lietuvos Ūkininkų Sąjunga" is a political group which until 1927 also carried on an economic activity in the sphere of co-operation. In 1927, the former Union transferred its economic activity to an organisation newly formed under the designation "Lietuvos Ūkininkų Kooperatyvų Sąjunga" (Union of Co-operative Societies of Lithuanian Farmers). Up to 1926, the year of the foundation of the Chamber of Agriculture, a body made responsible by the Government for the development of agriculture, the two central unions gave their attention, besides trading in farm requisites and farm products, to the encouragement of

the technical progress and the development of agriculture. Their experts delivered lectures on agricultural questions, gave advice to cultivators on the use of mineral fertilisers, on the improvement of live stock, etc., supervised and directed trial plots on the farms of cultivators, etc. At the same time the organisation of co-operative dairies was actively carried out by the Unions, with the result that these latter included, from the first, not only the agricultural societies but also the co-operative dairying societies. It proved in practice that the grouping of the dairies, as special types of co-operative society, with the unions of farming societies did not give good results. For this reason the dairying societies were detached in 1926 from their respective central organisations, and became independent institutions grouped in a Union of Co-operative Dairies. In this way since 1927, the Union of Lithuanian Agricultural Co-operative Societies and the Union of Co-operative Societies of Lithuanian Farmers have become exclusively Unions of Co-operative Societies for Purchase and Sale. In view of the fact that the activity of these two unions extended in both cases over the whole of Lithuania, the resulting competition between them had a prejudicial effect on the development of the co-operative agricultural trading societies. Accordingly the Government in 1926 initiated measures with the object of remedying this drawback. In 1929, the Union of Co-operative Societies of Lithuanian Farmers was forced to cease working, and from that time the Union of Lithuanian Co-operative Agricultural Societies (known as "*Lietūkis*") is the only Union of co-operative agricultural societies. In 1931, as previously stated, the Union of Co-operative Consumers' Societies became associated with the "*Lietūkis*".

At the present time the *Lietūkis* and the societies grouped under it supply farmers with tools, farm machines, fertilisers, seeds, concentrated feeds, household wares, and in a word all requirements. On the other hand the *Lietūkis* and the grouped societies buy from the farmers for resale cereals, pulse, clover seeds, linseed, fruits, etc. (For co-operative trading in eggs see under Heading IV). The *Lietūkis* has leased from the Ministry of Agriculture two elevators, one at Kaunas and one at Šiauliai, which enables it to supply cereals to the army and to export them. In the localities where co-operative agricultural societies are functioning, the *Lietūkis* does not undertake trading operations, while on the other hand where no such societies are in existence it opens entrepôts and warehouses and places itself in direct commercial relations with the farmers in the neighbourhood. The larger co-operative societies also often maintain branches and warehouses. At the present time it is open to any cultivator to enter into relations with a co-operative agricultural society for purchase and sale.

It should be added that the *Lietūkis* maintains certain factories for the preparation of flax fibre; to these the growers in the neighbourhood or even at some distance bring their flax to have it treated by improved methods. In addition, the *Lietūkis* has leased a large mill with the view to providing its members with flour and bran ground from their own grain or to selling these products to other parties. Since the beginning of 1933 the *Lietūkis* has instituted with the "*Pienocentras*" (see Heading IV) and the "*Maistas*" (see Heading VI) a share company for the working of a soap factory.

An important part is taken by the *Lietūkis* in the trade in cereals, fertilisers, farm machines, coal, cement, sheet iron and sugar. Nearly the whole of the cereals bought by the Army Commissariat is supplied by the *Lietūkis*. In 1931 and 1932, the quantity of wheat, rye and oats exported by the *Lietūkis* was 90 per cent. of the aggregate export of these products during the years in question. In 1931 the turnover resulting from the sale of chemical fertilisers amounted to more than 50 per cent. of the aggregate turnover relating to the same article throughout the country; in the case of farm machines more than 50 per cent. of the business in 1931 was done by the *Lietūkis*. In 1932 commodities were sold by the *Lietūkis* to a total value of 28.85 million *litas*, including foodstuffs for 18.49 million, fertilisers for 5.39, and farm machines for 0.79 million *litas*.

The financial position of the *Lietūkis* is, in spite of the crisis, quite satisfactory. This will appear from the following table in respect of the main items shown on the balance sheet for 1931 and 1932 (millions of *litas*) :

	31-XII-1931	31-XII-1932
Owned capital of <i>Lietūkis</i>	0.99	1.15
Stocks in store	3.44	4.25
Due to Creditors	5.60	5.29
Due from Debtors	1.99	1.53
Net profit	0.13	0.05
Balance sheet total	13.48	12.93
(Number of members	114	138)

The membership of the co-operative agricultural societies constituting the *Lietūkis* is almost entirely confined to small farmers and owners of medium sized farms. The large farmers have organised an agricultural trading society with headquarters at Kaunas. The capital of this society amounted at the end of 1931 to 552,021 *litas*; and in the same year its turnover was 479,839 *litas*.

Up to 1932 there was in active working in the Territory of Memel a co-operative society for purchase and sale with 164 members and a turnover of 3.5 million *litas* in 1931. In 1932 this society amalgamated with the *Raiffeisen-Handelsgesellschaft*.

IV. — CO-OPERATIVE DAIRIES.

As already stated the organisation of co-operative dairies was begun in 1923. The natural and economic conditions, for example, the preponderance of small and medium-sized farms, mainly due to the agrarian reform, are especially favourable to the development of live stock breeding and with it to that of the dairying industry in Lithuania. The most serious obstacle encountered in the organisation of the first co-operative dairies was the want of capital, the result of the Russian and German inflations, and in consequence the State was obliged to provide financial assistance. The number of the co-operative dairies quickly rose from 20 in 1924 to 88 in 1925 and in 1926 to 196 including 82 steam dairies. It would have required too large capital sums to extend the network of co-operative dairies and to arrange for the delivery of milk to the very distant dairies,

and hence from 1927 installations for cream separation have been established, where the cream is separated and forwarded to the dairies for transformation into butter. As these establishments had no equipment other than the separators, their installation did not press heavily on the farmers' budget. They belong either to the dairies which undertake to work them, or to societies which make contracts with neighbouring dairies for the delivery of the cream. The number of these separator centres rose rapidly from 53 in 1927 to 400 in 1929 and to 1868 in 1932. In 1932 there were in Lithuania 363 co-operative dairies, including three in the Territory of Memel. In addition to the co-operative dairies, about 70 private dairies are working in Lithuania, nearly 40 of which are in the Territory of Memel. These are engaged almost exclusively in the manufacture of cheese.

Organisation and Activity of Co-operative Dairies.

The capital required for the construction of buildings and purchase of machinery is obtained by borrowing from the Land Bank ; in addition, the co-operative dairies which conform to the rules established by the Chamber of Agriculture obtain a subsidy. These subsidies are small in amount but are of great importance to these dairy societies as increasing their solvency. Members of the society are liable in respect of the liabilities of the society for a fixed sum per head of dairy cows the milk of which is delivered to the dairy. At the time of admission the members are expected to pay registration fees and a certain sum per cow. In addition every member undertakes to pay a supplementary sum per dairy cow, to cover losses in the event of the financial resources of the society not being sufficient to pay the debts. Members undertake to deliver their entire milk production to the co-operative dairy, with the exception of the quantity required for their own consumption. Non-members' milk is also taken by the co-operative dairies. Suppliers deliver milk themselves to the dairy or to the separating establishment and take back the skimmed milk. Payment is made each month and calculated according to the content in butterfat of the milk, which is determined, as a rule, once a fortnight. Members are paid at a higher rate than non-members. In the majority of cases the skimmed milk is returned free of charge to the suppliers.

The management of the dairy society is in the hands of the Administrative Council the members of which frequently receive a fee, especially if living at some distance from the headquarters of the society. The accounts are usually kept by a paid accountant. The technical staff of the co-operative dairies include a manager ; the larger dairies also engage an assistant manager and a certain number of workpeople. The engagement of staff rests with the Administrative Council. The dairy manager receives a fixed salary ; he also receives free lodging, light, heating and dairy produce ; in many cases he also receives a premium per kilo of first quality butter produced.

The Lithuanian co-operative dairies are almost exclusively engaged in the manufacture of butter, for which is employed about equally either the cream supplied by the separating centres or the milk supplied directly to the dairy. The majority of the steam driven dairies have an average production of 6,000

to 8,000 kgs. of milk per day. Nearly all are provided with the most modern machinery imported from Denmark, Sweden or Germany, with artesian wells, and ice-boxes, making practicable the manufacture of first quality butter. According to figures supplied by the "Pienocentras" Union (see later) the number of suppliers, including non-members, of the 263 co-operative dairies in working and of the 1,868 separating centres, in 1932 was 81,745 with 254,717 dairy cows, or more than 25 per cent. of the farms of Lithuania. The quantity of milk supplied to all the dairies and separating centres in 1932 was 250.94 million kgs including 163.25 million kg. to the separating centres. With this milk 10.29 million kg. of butter was manufactured. the average quantity of milk handled in 1932 by the steam dairies was 1,340,000 kg. and by the ordinary dairies 431,000 kg. The development of the co-operative dairies is shown in the following table:

	1927	1928	1929	1930	1931	1932
Number of milk suppliers per dairy	39	54	116	221	262	310
Number of cows per dairy . .	135	181	369	654	794	968
Average quantity of milk supplied by a supplier (kg.).	2,172	2,951	2,463	2,590	2,755	3,264

The reduction in the quantity of milk per supplier in 1929 is due to the dearth of fodders consequent on the poor harvest of 1928.

Costs of production per kg. of butter vary naturally according to the quantity of milk handled. For example, in 1931, for the steam power dairies handling from 800,000 to 900,000 kgs. of milk, the costs amounted to 1.01 *litas* per kg. of butter produced, for dairies having handled from 1 to 1.2 million kgs., to 0.81 *litas*, and for those which had handled from 1.8 to 2 million kgs. — to 0.77 *litas*. In view of the drop in prices of butter in these last years (practically all the butter made in the co-operative dairies being exported) the dairy societies have taken all possible means to reduce costs of production; the stipends of the members of the Administrative Council and the wages of employees have been reduced; milk suppliers transport the butter themselves to the railway station, and the cream from the separating centre to the dairy, fetch the ice themselves for the ice-safes, etc. Moreover, dairies taking only small quantities of milk join with those among their neighbours which receive larger quantities and have improved equipment for the manufacture of butter; sometimes these dairies effect complete amalgamation, sometimes they amalgamate only for the purpose of butter making.

At the present time the dairy societies operating in Lithuania are grouped in a single Union only — the Central Union of Dairy Societies of Lithuania (*Centralinė Lietuvos Pieno Perdirbimo Bendrovių Sąjunga*, abbreviated into "Pienocentras"). As previously stated (see Heading III) the dairy societies had been organised by the Union of Lithuanian Co-operative Agricultural Societies, and by the Farmers' Union. At the beginning of 1926 the dairy societies of the Farmers' Union separated from the Union and organised the "Lietuvos Pieno Perdirbimo Bendrovių Sąjunga", or Union of the co-operative dairy societies of

Lithuania. At the end of the same year the dairy section of the Union of Lithuanian Co-operative Agricultural Societies also withdrew from the Union of which it was an integral part and became an independent institution under the designation of "Centralinė Lietuvos Pieno Perdirbimo Bendrovių Sąjunga", abbreviated as "Pienocentras". The co-existence of these two Unions hindered the development of dairy co-operation, since both were in active operation over the whole of Lithuania. From 1926 steps were taken by the Government to remedy this overlapping. In 1928, the Union of Co-operative Dairy Societies of Lithuania was obliged to suspend operations; the dairy societies which had been grouped under it joined the Central Union of Co-operative Dairy Societies of Lithuania, or the "Pienocentras".

The *Pienocentras* establishes co-operative dairies in suitable places, distributes to the member societies machines, small casks, parchment paper, salt, etc. The technical instructors of the Central Union prepare plans and estimates of dairies to be established, its fitters set up the new machinery as required and examine and repair machinery in working. Its advisors in dairying visit the dairies and instruct the managers on technical points; the work of sinking the artesian wells is supervised by the Union's experts, and its accountancy advisers visit the dairies to give assistance in organisation and book-keeping.

In addition the *Pienocentras* organises courses for the managers of the separating centres, and gives encouragement to the periodicals etc. of the dairy industry. The most important function of the *Pienocentras* is the marketing of the butter manufactured by the member dairy societies, alike on the export and the home market. Several warehouses are maintained by the Union at Kaunas and at Memel for the sale of dairy products. Pasteurised milk is also supplied to the inhabitants of the provisional capital of Lithuania. Since a very small proportion only of the butter manufactured by the co-operative dairies is consumed in the country, the most important function of *Pienocentras* is to find markets abroad for the Lithuanian butter. It may be noted that prior to the introduction of State inspection, i. e., up to 1 November 1927, inspection of butter for export was carried out by the *Pienocentras* itself. The Union has in fact contributed largely, thanks to the activity and initiative of the members of its Administrative Council, to the rapid introduction of butter inspection by the State as well as to the prompt construction of modern cold storage plant in the port of Memel, through which all butter exported is shipped. The establishment in 1932 of a station for research work in regard to the appearance of defects or deterioration in butter is equally due to the initiative of the Administrative Council of the *Pienocentras*.

The development of the export of butter by the *Pienocentras* is shown in the following table:

	1927	1928	1929	1930	1931	1932
Quantity exported in metric tons	551	1375	2810	6027	7461	9281
Quantity exported as percentage of all Lithuanian butter exported % . . .	27	59	75	89	94	96

From the above figures it is clear that there has been a steadily increasing export of butter by the *Pienocentras* and that this Union is becoming practically the sole exporter of Lithuanian butter. It may be noted that the progress, in spite of the crisis, of this industry in Lithuania is to be ascribed to the centralisation of the co-operative production and exportation of Lithuanian butter in the hands of a single Union.

The financial position of the *Pienocentras* may be ascertained from the examination of the most important items of the balance sheet (expressed in millions of *litas*) :

	1 January 1931	1 January 1932	1 January 1932
Owned capital	0.56	1.35	1.69
Due to creditors	4.32	2.12	2.82
Due from debtors	2.77	3.63	2.40
Net Profit	0.15	0.19	0.12
Balance-sheet total	6.09	7.68	7.83

Since 1929 the *Pienocentras* has also exported eggs. During the years 1923-26, the co-operative export of eggs was effected by the regional Union of co-operative agricultural societies known as "Gamintojas" at Šiauliai. Eggs were delivered by 85 co-operative societies to the grading centres of that Union, which exported 2,655 thousand eggs in 1924, 3,725 thousand in 1925, and 1,157 thousand in 1926. In consequence of the want of experience of its managers, of the beginning of the price decline in 1926 on the world market, and for other reasons the "Gamintojas" was obliged to suspend, in 1926, this branch of its activities. In the same year it became associated with the *Lietūkis*. In 1929 the *Pienocentras* proceeded to organise the co-operative trade in eggs. It is not necessary to engage special employees for collection of eggs; the farmers themselves can collect their eggs at the same time as their milk. Subsequent collection is carried out both by the agricultural co-operative societies and the consumers' co-operative societies. From the collecting centres, eggs are transported to the nearest grading centres where final grading and packing is effected. The *Pienocentras* effects the sale of eggs abroad or in its own warehouses of dairy products. The development of the trade in eggs through the *Pienocentras* is illustrated by the following figures :

	1929	1931	1932
Number of societies (acting as collecting centres)	47	130	110
Number of eggs purchased (in thousands)	485	5615	9800
Quantity of eggs exported (in thousands)	360	4815	8760

In 1932 the figure representing the egg export of the *Pienocentras* formed nearly 20 per cent. of the total export figure of eggs from Lithuania during the year. In spite of the crisis and in spite of the decrease in this latter figure the *Pienocentras* was able in 1932 to increase its exports by 82 per cent. as compared with 1931 and to occupy the leading place among exporters of Lithuanian eggs.

V. — RURAL CO-OPERATIVE CREDIT SOCIETIES.

For the first years of the revival of the Lithuanian State, it proved necessary to reorganise the whole credit system completely, as the capital of the formerly existing credit societies had been dissipated during the war in Russia or had disappeared during the German inflation. The confidence of the public in this type of co-operative societies had been shaken by the depreciation of the deposits which had been placed with these societies. Moreover the continual devaluation of the German currency introduced into the country by the authorities of the occupation tended to prevent persons who had money to invest from placing it in co-operative credit establishments. Finally during the first years that followed the proclamation of Lithuanian independence, the fact that the existence of the State itself was in danger, was also very far from favourable to the development of this type of co-operative societies. During the period of inflation, too, the farmers did not require credit. The introduction in October 1922 of a stabilised currency — the Litas — removed the most important of these obstacles to the development of co-operative credit. But as a consequence of the depreciation of the Russian and German currencies the financial resources of the country considerably diminished, while the possibility of obtaining foreign credits was nil, on account of the unstable political situation of Lithuania at that time. The shortage of working capital made itself felt, and the necessity of forming co-operative credit societies was recognised by all, and especially by the farmers. It was found, on forming the societies, that there were numerous applications for loans and very few deposits made. The Government was not at the time in a position to place funds at the disposal of the societies for the formation of capital. To meet these difficulties, at least in part, the members were themselves obliged to constitute the resources immediately required for the society and accordingly they paid up their shares on enrolment. The co-operative credit societies also obtained advances from the Lithuanian Bank of Co-operation and from the Central Bank of the Farmers' Union (the Farmers' Central Bank). As soon as the societies began to make loans to their members, deposits were immediately made, and the societies were then in a position to apply for advances to the Bank of Issue, to the savings banks, and, later, to the Land Mortgage Bank.

Up to 1927 the co-operative credit societies were constituted in accordance with model rules prepared by the Inspection of Credit Institutions and Co-operative Societies at the Ministry of Finance, which since 1932 has become the Inspection of Establishments and Undertakings presenting accounts for public audit. Provisions was made in the rules, in addition to the granting of credit to members, for trading operations, such as supply of fertilisers, and activities meeting the moral and social needs of the members. Each member is expected to pay up one share, on an average 25 *litas*, on his enrolment, and to undertake a liability up to double the total of the credit opened for him. The co-operative credit societies accept deposits from any quarter, but only members can obtain loans. Loans are granted for a period not exceeding 18 months and on condition of being utilised for the purposes indicated by the borrower. The rural co-oper-

ative credit societies make loans against the deposit of securities. Recovery of loans not paid on expiry is effected by the municipal authorities of the communes or by the police according to a very simple form of procedure, in virtue of a former Russian law still in force.

In 1927, and on the initiative of the Ministry of Agriculture, a beginning was made with the organisation of agricultural credit banks, called "communal". These banks differ from the co-operative credit banks in the following respects: they are prohibited by their rules from undertaking trading operations and also from any activities for the non-material interests of their members, for example, from founding libraries, making grants to periodicals, etc. The activity of each bank is limited to the commune in which it is established; membership is open to the farmers of the commune holding more than 2 hectares of land; one member of the Administrative Council and one substitute member must be elected from among the members of the agricultural council or their substitutes.

In connection with the formation of "communal" banks, and with the endeavours of the Government to strengthen the financial activity of the rural co-operative credit societies, there were issued in 1928 by the Council of Ministers "Regulations relating to the formation of foundation capital of agricultural co-operative credit societies". In virtue of these regulations, advances are made by the Public Treasury to the agricultural co-operative credit societies, for the formation of their foundation capital. The rate of interest on these advances is 3 per cent. and repayment must be effected during the 13 subsequent years, the first payment being due at the end of the sixth year. The co-operative credit societies receiving advances in this way are expected to undertake, *inter alia*, not to operate except within the limits of the commune in which they have their headquarters, not to pay any remuneration to members, of the Administrative Council until the total of the loans granted by the society amounts to 100,000 *litas*. The member of the Administrative Council who keeps the books of the society may receive the salary provided for on the budget; further, the rate of interest, including the commission, to be charged by the co-operative societies for the loans made by them must not exceed 12 per cent.

The following figures may serve to give some idea of the position of the rural co-operative societies, without taking into account the agricultural credit co-operative societies of the Territory of Memel:—

	31 December 1930	31 December 1931	31 December 1933
Capital owned by the societies (in millions of <i>litas</i>)	5.22	6.08	6.98
Deposits (in millions of <i>litas</i>) . . .	17.13	20.86	21.19
Debts to Banks (in millions of <i>litas</i>). . .	8.94	12.13	12.35
Loans granted (in millions of <i>litas</i>). . .	31.70	40.52	41.66
Number of societies	287	285	292

The position of the Lithuanian rural co-operative credit societies is sound. Of their borrowers 95 per cent. are cultivators, whose holdings are relatively lightly indebted. In addition, the supplementary liability, equal to half the

amount of the credit opened for each of the nearly 80,000 members, constitutes a special guarantee for the security of the deposits and of the other forms of capital.

Up to 1929 the Lithuanian co-operative societies of agricultural credit apart from those existing on the Territory of Memel, belonged to two Central Unions: the Bank of Lithuanian Co-operation – “Lietuvos Kooperacijos Bankas” – and the Central Farmers' Bank – “Centralinis Ūkininkų Bankas”. In consequence of unsuccessful operations for the account of the Farmers' Union the Central Farmers' Bank was obliged in 1929 to go into liquidation. At the present time, the majority of rural co-operative credit societies in working are attached to the Lithuanian Bank of Co-operation, founded in 1920. Among the members of this Bank, however, there are included not merely the co-operative credit societies, but also co-operative consumers' societies and other co-operative societies. The share to be subscribed by the member society is 500 litas; the liability of each member for the operations of the Central Union amounts to double the value of the credits which, in case of need, might be advanced to any one of them by the Bank. Apart from its financial functions, the Bank also assists the agricultural credit co-operative societies by giving them instructions and guidance, and by supervising and co-ordinating their activity.

The following figures will illustrate the activity of the Bank of Lithuanian Co-operation:—

	31 December 1930	31 December 1931	31 December 1932
Number of members (including the co-operative credit societies) . . .	255 (181)	221 (173)	205 (165)
Owner capital (millions of litas)	0.61	0.65	0.65
Deposits	6.3	6.9	6.0
Debts at the Banks.	0.3	1.4	1.0
Loans granted	6.3	6.9	6.0
Balance sheet total	10.2	10.7	9.1

In the Territory of Memel are found co-operative credit societies of the Raiffeisen type, organised before the war. In 1932 there were 39 of these. The position of these Raiffeisen co-operative societies was as follows on the 31 December of 1929, 1930 and 1931 respectively:—

	31 December 1929	31 December 1930	31 December 1931
Share capital in millions of litas).	0.19	0.26	0.20
Deposits.	14.2	17.3	18.7
Debts to Banks	4.26	4.88	6.11
Loans granted	17.08	20.89	23.47

In 1923 the Raiffeisen co-operative societies of the Territory of Memel founded a central Bank “Raiffeisenbank A. G.”, which as a rule makes advances to members in the form of current account.

VI. — OTHER AGRICULTURAL CO-OPERATIVE ORGANISATIONS.

Among the other agricultural co-operative organisations, the most important are the Breeders' Associations. In 1932, there were three societies of cattle breeders, three of horse-breeders, one of pig breeders, and one of poultry and small stock breeders. The number of these societies is very limited as their activity in each case is extended over the whole country. Their most important work is the keeping of herd books. The Herd Testing Associations work in close touch with the Cattle Breeders' societies; in 1931-32 there were 145 societies including 2,919 herds and 33,661 cows under test. The five first testing associations were founded in 1923. This type of agricultural co-operative societies did not exist in Lithuania before the war. All the Breeders' societies work in close contact with the Kaunas Chamber of Agriculture which supervises and co-ordinates their activity.

Among agricultural co-operative societies of less importance there should be mentioned (figures in brackets show those registered up to 1 January 1933): apiculturists' societies (17), co-operative societies for the joint use of farm machines and implements (109), and a Central Insurance Union or «Kooperacija». This last acts as a co-operative fire insurance society. The membership is drawn mainly from the family farming class and from the existing co-operative societies. For 1932 the capital insured amounted to 30 million *litas*.

It will be seen from the preceding account that co-operation plays an important part in nearly all branches of agriculture in Lithuania. The production of bacon — Lithuania having become in recent years one of the main suppliers of bacon to the British market — and the sugar industry are alone in being in the hands of share companies, the «Maistas» and the «Lietuvos Cukrus» respectively. The «Maistas» has four large modern establishments for the preparation of bacon and the «Lietuvos Cukrus» established in 1931 the leading sugar refinery in Lithuania. At the present time, the Ministry of Agriculture is the largest shareholder of the two limited companies, but the number of shares held by the farmers is on the increase and with time they will acquire the greater proportion of the shares of these companies. When payments to the farmers are made by the «Maistas», the company keeps 5 *litas* per pig delivered and hands over shares for the value of the sum retained. The payments of the «Lietuvos Cukrus» to the beet growers are made in a similar way.

VII. — THE COUNCIL OF LITHUANIAN CO-OPERATIVE SOCIETIES.

The first Congress of Lithuanian co-operative societies was held in March 1920. The second Congress, which was held in May 1922, passed a resolution for the formation of a directing organ of Lithuanian co-operative societies. In the same year, the «Lietuvos Kooperatyvų Taryba» (Council of Lithuanian Co-operative Societies) began to function. Its activities include: examination of questions of common interest on the subject of co-operation, co-ordination of the activity of the societies, advisory and inspecting functions, the organisation of courses in co-operation, the summoning of congresses of all the Lithuanian

co-operative societies, the representation and protection of the interests of the societies as against any action of the public authorities. At the present time the Council includes among its members the "Lietūkis", the "Pienocentras", the "Lietuvos Kooperacijos Bankas", the Insurance Union "Kooperacija". The Council publishes a monthly review "Talka" (Common Toil) and a popular paper "Bendras Barbas" (Work in common). The Council of Lithuanian Co-operative Societies, it may be added, belongs to the International Co-operative Alliance and represents its societies at international congresses of co-operation.

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SEEDORF Prof. Dr. W. and HESSE Prof. Dr. P.: Grundriss der landwirtschaftlichen Marktlehre. Berlin, Verlagsbuchhandlung P. Parey. 1932, pp. XII and 351.

[The appearance of a book on the science of agricultural marketing may be regarded as a sign of the times, an index marking the present phase of world economic development.

At the period of transition from the war to the peace economy when for more than four years European agricultural production remained greatly reduced, all efforts were directed towards restoration by every available means of agricultural resources and towards an increased agricultural production. Thus it was the problem of production and of increased production that mainly occupied the attention of statesmen in framing the different measures which arose out of the agrarian policy.

In 1919 Prof. SEEDORF, with whose name the whole movement of the scientific organisation of agricultural work in Germany immediately after the war was connected, published his book: "The Improvement of Agricultural Work and the Better Training of Agricultural Workers with special reference to the Taylor system", wherein he makes the following remark: "The human labour force is today the only assured and unassailable possession left to us in Germany... A complete and thorough investigation of the whole sphere of agricultural work is required." The ideas to which expression was given by Seedorf in this book took practical effect in the establishment of institutes for research on agricultural production directed towards increasing the efficiency of human labour on the land (1).

The importance of the problem of production on the international plane is briefly expressed in the resolution taken in 1920 by the International Labour Office for the initiation of an enquiry into the world economic production and for "the stimulation", in the words of its late brilliant Director, Albert Thomas, in the preface to this enquiry (Vol. I, 1923, p. 12) "of the work of all the industrial classes with the object of obtaining a better return and in this way the making good of the deficiencies in production from which the whole world is suffering."

The fate that befell this enquiry, which is embodied in three large volumes, was a strange one, since in the actual course of the investigations on the failure of production, there supervened a quite unexpected development in economic life, namely, that the insufficiency of the volume of production has suddenly become transformed into a well-marked over-production, with the consequence that the problem has become from this time forward not the development of production but rather the

(1) See the publication of the International Institute of Agriculture: *L'Organisation Scientifique du Travail Agricole en Europe*, 1931.

crisis in respect of the marketing of agricultural products. As a result of the application of improved methods of work, production increased in 1925 in a proportion varying from 16 to 18 per cent. of the level of 1913, while the growth of population over the same period of time was only 5 per cent (Memorandum on Production and Trade. League of Nations. Prepared by the Preparatory Committee of the International Economic Conference. Geneva, 1926, p. 5).

This situation has become since that date much aggravated. According to the Statistical Yearbook of the League of Nations 1932-33 (p. 168), the world trade which in 1929 amounted to 68,641,000,000 dollars had fallen in 1932 to 26,611,000,000 dollars, in other words, the interstate trading relations declined in the course of those four years by more than 60 per cent. Nearly half of this regression in world trade is due to the price decline, while the other half is a direct consequence of the contraction in the volume of trade.

There has been no improvement in 1933. On the contrary, if the value of the world trade in 1929 be taken as 100, the imports in July 1933 are found to be reduced to 34 and the exports in the same month to 35 (*Monthly Bulletin of Statistics*. League of Nations. No. 9, September 1933, p. 344).

The whole development of trade, instead of pursuing the pre-war course, has thus been undergoing during these latter years a very perceptible shrinkage. As was remarked by the Conference of Experts of the League of Nations for the preparation of the Second International Economic Conference in January 1933: "Every one wants to sell and no one wants to buy".

In consequence of this state of affairs, much more careful attention is given than before by different institutions to economic conjunctures, to periodical fluctuations and in general to organisation of the market.

A number of books of an unofficial nature dealing with the problems of the organisation of agricultural markets have also appeared within recent years, such are, for example, the volumes published by Sering, Beckmann, Asmis, Hesse, etc. See-dorf himself, the pioneer of Taylorism as applied to German agriculture, and Hesse his assistant and former co-worker at the Pommritz Institute, have now realised the necessity for turning their attention away from the factors of scientific production and of focussing it at present on the marketing of agricultural products.

As an introduction to the general problem of the scientific conduct of marketing, a brief but clear description is given of the economic evolution of the market from its origin in the family economy down all the successive stages of the foundation of towns and markets in mediaeval times, up to the emergence of the modern economy under which agricultural products, in order to find a market, have to pass often very far from their place of origin, and even to traverse continents. With the aid of the available figures and the concrete facts, the effects are shown on the sale of agricultural products of the population factor, the changes in the numbers and density of population, the decrease in income or more precisely in the purchasing power of that part of the income set aside for the satisfaction of food requirements. It is seen that in consequence of the facts stated the consumer turns towards the cheaper products of inferior quality.

Production of and demand for agricultural commodities develop independently, each pursuing its own course without any harmonious adaptation of the one to the other. The pre-war regulating force which intervened more or less satisfactorily in the relations of supply and demand and held the balance, as it were, between the demand of the world market and the supply from international production, is now practically non-existent, unless indeed the scientific principle of a planned economy replaces it.

In consequence the position is that either there is a production which far outstrips the demand for agricultural products, or the reduced demand, or rather the reduced market capacity, falls far below the volume of production. Just now it would appear that both these phenomena are present, and thus it is that as a result of "the imperfection of human reason", to quote Descartes, or of "human folly", as the author says (p. 8), the whole world organism of economy has gone to pieces.

The study of the characteristics of the different geographical zones of agricultural production on the national and international plane, and the analysis of the changes that have come about in the economic structure in the different countries, particularly the importing countries which after the war noticeably reduced their demand for agricultural products on the world market, are carried out by the authors with extraordinary erudition and lucidity. "There is fundamentally but little prospect" they say, "of a closer coincidence between production and the absorption capacity of the market being brought about again by natural means. This is the less probable seeing that the decline in the rate of increase of population in many countries seems to be definitely continuing, and that the food supply requirements accordingly do not on the whole increase to the same extent as formerly. In our opinion, it is only by State measures, and hence by artificial intervention, that production can be brought into economic relations with market demands." (p. 63).

Following on the study of the objective factors that influence the organisation of the market and the price formation, special attention is given to the economic activity of man on the market, often puzzling in its manifestations and containing unknown elements, the commercial transactions of farmers in their capacity as dealers, and the part taken by co-operative associations in economic life. Questions of trade monopoly, tariffs, quotas and in general the place of the State in public life are treated with due regard for the interests of the whole community.

The dominating idea of the writers is that the present disintegration of the world economic relations, and the difference in levels between the price of agricultural products on the national market and on the world market, are causing serious hindrance to the economic progress of society. "Although to-day, in consequence of economic and political measures taken, the level of national prices frequently, as in Germany, shows a divergence from those on the world market, and price formation is effected independently with the help of political factors, this state of things can hardly be regarded as a permanent situation. A radical change in the present day phenomena of the home and international markets would quite naturally stimulate the classes interested in trade movement of commodities to endeavour to obtain closer relations with the world market. Given the confusion of prices on the world market such a rapprochement does not present any special interest." (p. 305).

The writers do not cherish the vain hope of suggesting a panacea for the normal re-establishment of agricultural trade. Their penetrating analysis however may prove a stimulus to the investigation of the positive causes of the prevalent disorder in trade and may largely contribute to form a sound judgment on all the problems of the agricultural market which at the present time are vexing countries and continents].

M. T.

SOROKIN, PITIRIM A. ZIMMERMAN, CARLE C. and GALPIN, CHARLES J. *A Systematic Source Book in Rural Sociology*, The University of Minnesota Press, Minneapolis, Minn. 1932. Vols. 3.

The combined effort of three well known authorities in the field of rural sociology in the U. S. A. has produced a work which is a very valuable contribution to the

literature on that subject. As the title of the work itself implies, the purpose of the three large volumes which constitute it is not to advance new theories or to lay down new principles of rural sociology. In the words of the authors themselves this extensive work is intended chiefly to furnish students of rural economics with as much information as can be gathered on the subject from European, Asiatic and American historical and scientific literature; and the authors have drawn upon the most ancient as well as from contemporary sources. In fact the first part of Vol. I may be considered a compendium of the ancient and early history of rural sociology, dealing, as it does in the first chapter, with ancient Oriental, Greek and Roman documents; while the second chapter deals with the history of rural sociology from the 14th to the 19th century. The second part of the same volume deals with «the details of the external and more formal characteristics of the sociological organisation of rural life», i. e. the fundamental differences between the rural and urban worlds, the ecology of the rural habitat, the differentiation of the rural population into cumulative communities and functional associations, the social stratification of the agricultural population, the mobility of the rural population, the fundamental type of rural aggregates.

Volume II deals with the rural social world from the point of view of its institutional, functional and cultural characteristics. Taking the family as basic institution, the authors examine in detail all forms of social, political and economic associations of the rural population. Politics, religion, art, culture among the rural classes are carefully studied. The influence of urbanisation and of rural-urban reactions are dealt with in an interesting chapter on criminality, immorality and intemperance. Comparative data between conditions in cities and in the country testify to the superior moral code of the rural population as a whole. Like the first volume so this volume is enriched by quotations from the foremost writers on sociological, political and economic matters, which make reading not less interesting than enlightening.

Volume III is an analytical study of the physical characteristics of the rural population. Whenever necessary, the authors discuss the relative merits of rural as compared with urban life. Thus prevailing ailments, tendency to special diseases and reaction to them, birth, vitality and mortality rates as well as suicidal and murderous tendencies in cities and country are extensively dealt with. All this material is treated in several long chapters full of statistics and indices. The second part of this volume is chiefly dedicated to the study of rural urban relationships, every aspect of which is illustrated by quotations from the best world authorities. An index concludes the work while ample bibliographical references are given in numerous footnotes throughout the three volumes.

Mitteilungen aus dem Internationalen Landwirtschafts- Institut in Rom. Berlin, P. Parey, 1933. I. Jahrgang, Heft 1 (To be published about 8 times a year. Annual subscription, April-March. Rm. 12).

The German edition of the International Review of Agriculture had to be suspended at the end of 1930. However, through the courtesy of the Ministry of Agriculture of the Reich, it has been possible to keep former readers of the German edition in touch with the activities of the Institute by the regular publication of abstracts of the Institutes' bulletins in the journal *Berichte über Landwirtschaft* which is published at Berlin under the auspices of the Ministry. This information service, which, according to the general character of *Berichte*, lays a particular stress on economic problems, has been further developed, and is now also being published as a separate issue of the *Berichte* under the title "*Mitteilungen aus dem Internationale Landwirtschafts-Institut*". The first number of this periodical publication contains as a new important feature the

beginning of a current *International Bibliography of Agricultural Economics*, which is compiled by the Chief Librarian of the Institute on the basis of book and periodical material received regularly in the library of the Institute, which is one of the largest and most representative agricultural libraries of the world. A bibliography of international scope on agricultural economics has not existed heretofore. There is little doubt that the material contained in this new bibliography will be of considerable value for all research workers and agricultural economists in the different countries. Every effort is made to render the compilation as complete as possible, but at the same time to eliminate material of secondary importance. Not only books and separate pamphlets are listed, but also articles in periodicals, as far as the bibliographer may presume that the information contained therein will be of permanent interest to the research worker. News of purely transitory interest is excluded. The titles are given in the original language, translations being added for the less known idioms in one of the recognised world languages. Completeness and accuracy of bibliographical details facilitate the search for the originals. The field of agricultural economics is covered in the broadest sense, including agricultural policy, land tenure, internal colonisation, credit, cooperation, insurance, marketing, prices, taxation statistics, farm labour, farm management, farm accountancy, agricultural geography and history, rural education and sociology, etc. The bibliography is systematically arranged and author and geographical indexes will be supplied at the end of each volume. It may be hoped that the Institute may later on be in a position to take over itself the publication of this bibliography and to develop it by including also the technical branches of agriculture, where a need for a quick comprehensive and international indexing service of world's literary production is also much needed, although good partial bibliographies for various practical topics do already exist. The amount of research work as published in the great number of scientific publications of the different countries of the world is so overwhelming, that an international key to it, in the form of a current *International Bibliography of Agriculture*, becomes a vital necessity.

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POPULATION DEVELOPMENT, WHEAT PRODUCTION AND WHEAT TRADE OF THE WORLD

The present study is almost exclusively based on the publications of the International Institute of Agriculture at Rome (International Yearbook of Agricultural Statistics, etc.) In the case of lacunae occurring and for purposes of comparison the official statistics of the different countries have been utilised. The figures have been established with all the accuracy that is practicable, but it is of course impossible to exclude all sources of error, as even at the present day the data for large areas of Asia, Africa, etc., are more or less uncertain. A correct idea of the actual position of the world wheat market may however be obtained from the data that have been utilised.

(A) THE SIGNIFICANCE OF POPULATION DEVELOPMENT FOR WORLD WHEAT PRODUCTION AND FOR THE WORLD TRADE IN WHEAT.

When any attempt is made at a comparison of the views and opinions expressed in regard to the world economic crisis by persons well qualified either by their knowledge of economic theory or by their practical experience of economic questions, the conclusion reached is that the explanations put forward alike of the nature and of the causes of the crisis are highly contradictory. Some authorities are of the opinion that the present disruption of the world economic structure is, although of greater magnitude, merely one among such crises as have constantly been observed in the fluctuation of the economic cycle. Their firm conviction is that there is no ground for economic pessimism, and further that once the present distress is overcome there will be a readjustment in the direction of progress greater than any so far within the experience of mankind (J. M. Keynes). Others see the final cause of the catastrophe in the shrinkage of gold production and in the accumulation of gold in some few countries. Others again connect it with the exhaustion of the national and international credit sources, with the impairment of moral forces, a crisis in confidence, a factor as indispensable for modern economic organisation as is the physical volume of the gold supply. Other authorities

NOTE. — The *International Review of Agriculture* is glad to publish the following interesting monograph by Prof. HENKELMANN. At the same time it should be understood that for the opinions expressed and the conclusions reached the author is alone responsible.

are equally convinced that the basic cause is an ill-directed production without corresponding marketing possibilities. To these various explanations may be added the differing points of view which the students of the special conditions of the individual countries are impelled to adopt. Still more contradictory and bewildering is the multiplicity of counsels as to the remedying of the agricultural crisis (1).

It is not the intention of the present writer to add any new theory to all those in existence as to the connection between the general economic crisis and the agricultural crisis. There are however certain facts and events of a national and international order occurring within the economic framework of post-war agriculture to which attention may be drawn, since, although so far but little account has been taken of these, they will, in all probability, prove to be determining factors for the general agricultural situation in the future, whatever may be the outcome of the world economic crisis. We are on the threshold of far-reaching structural changes, indeed of a reconstruction of the agricultural bases of the world economy, a reconstruction which will have a decisive influence not only on the direction of agricultural development, but also probably on the foundations of the entire superstructure of world economy (2).

In any discussion of changes in the structure of world agriculture, the mind naturally turns first to the great technical advances that have been achieved within the last decade in the overseas and other competing agricultural countries, advances which are everywhere the subject of comment and the effects of which are fairly generally considered to be a factor in the continuous fall in agricultural prices. Among such there come to mind the introduction of tractors, disc ploughs and the combined harvester-thresher, and generally the so-called complete mechanisation of the overseas cereal growing areas; the measures for reduction of costs and increase of yields and especially for the improvement of marketing organisation, all measures by which the overseas countries during the post-war period took the world by surprise. In the land of "unlimited possibilities" new marvels of technique were accomplished daily. Hence it is in no way astonishing that with the apparently endless series of problems to be solved daily it is not observed, or there is no wish to observe, that the foundation on which these valiant and costly projects are being reared has already become unsound and that in places it is giving way to a serious extent. Full recognition should be accorded of the rapidity of advance in agricultural technique of the past decade, with the striking development brought about in the quantity and quality of products placed on the agricultural market; but in spite of all such progress, the factors decisive for the future shaping of the agricultural situation are not to be found among the changes on the supply side of the market. The decisive facts are discoverable rather in the fundamental changes which have taken place on the side

(1) BRINKMANN, Dr. TH.: «Schicksalsfragen und Zukunftsaufgaben der deutschen Landwirtschaft». Mitteilungen der Deutschen Landwirtschaftsgesellschaft, 47. Jahrgang, 1932, S. 108.

(2) Ibid.

of demand, in the sudden check in the population increase precisely in the importing countries on the world market (1).

The statistician E. Kahn observes and not without reason, that the phase of our economic history covering the climax of capitalism seems unimaginable without a large contemporary increase of population. There was so to speak a race between population and production, in which population increase nearly always had a short start of production. It seems not to be a chance coincidence but a relation of cause and effect that in the period of the slow moving beginnings of capitalism it took nearly 500 years — from 1350 to 1820 — for the population of Europe to increase from 100 to 200 millions, whereas some eighty years have been enough, in the period of the climax of capitalism, to raise these 200 to 400 millions.

The natural growth of the population, or in other words, of consumers, had thus apparently brought about almost automatically a wellnigh unlimited expansion of the market, for with the exception of the increased numbers in Eastern Europe, all these millions appeared as new purchasers on the market for agricultural products. For a long time now however there has been a decided slackening in this tendency towards increase. Population has, so to speak, dropped out of the race, and according to the investigations of eminent statisticians there is now in view a stationary condition or even a decline of population, while production goes on unchecked, or at least "slowing down" is as yet hardly noticeable. Although this phenomenon does not yet appear to find confirmation from any superficial survey of the population development in the different countries and in the world, a closer study reveals that the position is that of a declining population and we are not aware of it simply because an absolute increase is still going on. This increase actually continues, in spite of the fact that the average, taking all countries together, of three children to a household, the number calculated as essential for the maintenance at the same level of the world population, has for some time no longer been attained. The explanation lies in the fact of the abnormal age-grouping of the population in the countries most important for the population movement as well as in the diminished death rate. The phenomenon of the decline in the birth rate is an international one, and this transition from an increase to a decline in the numbers of mankind marks a decisive turning point in the economic history of the peoples belonging to the European and American civilisation. The Slav peoples have gone so far in conscious birth restriction that the end of the natural increase of population seems to be within sight.

Only a very dim idea can be formed of the population movement in the Far East with its Asiatic races, since for readily intelligible reasons, the data are extremely fragmentary and it is impossible to arrive at any sound conclusion. It seems however that in the most important regions high fecundity is found side by side with a correspondingly high mortality of infants and young

(1) KAHN, E., *Der Internationale Geburtenstreich*. Frankfurt 1930, S. 99.

children, so that for the time being no large population surplus is formed. How far the Far East will be affected by a further infiltration of modern European standards it is impossible to say, since the influence of irrational, and especially of religious impulses cannot be even approximately estimated in those countries. The Japanese biologist, Dr. Asajiro Oka, brings new and abundant material to show that there is a decline in population in Eastern Asia, so that the Far East would seem to have been drawn already into this current.

In any case the tendency is evident in the vast territories of the continents of Europe and America, which are for the time being of most concern to us. There are of course differences in intensity in the different nations, but the fundamental tendency is everywhere the same; there is a general participation in the international phenomenon of the decline on the birth rate (1).

"To understand the importance and the full scope of this process in world history which we are witnessing and which will be decisive for the future development of the whole world economy, there must be kept clearly in view the extent to which the whole endeavours and activities of the past, all considerations, hopes and expectations have been influenced by the idea of forward movement. The whole present generation of our farmers have grown up in the belief that a continuous increase in population and along with it a continuous expansion of trade, a constantly increasing demand for the products not merely of industry, but also of agriculture was a "normal phenomenon" of economic development. Whole countries and immense continental areas were opened up within the lifetime of the last generation, not merely for purposes of settlement, but because men believed, as did Malthus, that unless such areas were brought under cultivation there would one day be a shortage in the world's food supplies. The timely opening up of new world resources in regard to cereal and meat production seemed to be a dazzling speculation for the future. A veritable intoxication with the idea of development and "progress" had taken hold on the world, and all the facts seemed to justify the conviction." (Brinkmann). Under the illusion that consumers could be "grown" like tomatoes or salad in the spring in beds or under glass, provision was made for further extension of production with increasing yield capacity in the anticipation that the consumers, for whose benefit this vast machinery was being set up, would come into existence of themselves. That the impetus to expansion of an economic system which had become an end in itself, could one day find its goal in a void was entirely beyond conception.

"The spectre of overpopulation has fled, and in the place of dreams and imaginings a stern awakening has come about. The world speculation in agriculture, the settlement policy of the overseas agricultural countries, a policy which had been framed on long views, has proved itself a fundamentally miscalculated speculation. The food resources of the world instead of showing

(1) KAHN, *loc. cit.*, p. 63.

shortage have become, at least for that section of mankind on the consumption of which calculations had been based, suddenly too large."

"It is agriculture which will have in the first instance to bear the consequences of the regressive movement of population, since its participation in the advantages of any re-adjustment or stimulation of demand can only be small. There is a limit to the need for agricultural products, and one which cannot be overpassed, *viz.*, the capacity of the human stomach multiplied by the number of human beings to be fed. The effect of the lowered rate of increase in population is in fact bound to be more noticeable in this respect, from the fact that with the large increase in consumption during the pre-war period the saturation point of the per capita consumption was all but reached, especially of the low priced mass products. Hence a rise in *per capita* consumption, equal to that taking place in the last pre-war decades, can no longer be counted upon." (1)

This will be the position of the entire world market in agricultural products in the future. The rivalry between the agricultural exporting countries of the world and the agricultural production of the European importing countries is, not for the first time, convulsing the world agricultural interests, but this rivalry has now entered upon a quite new phase of development, of which the characteristic feature, as compared with the period of agricultural crisis in the last century, is a stable demand on the market of agricultural products." (1)

With the cessation of the natural increase in the number of consumers it will become necessary to encourage changes in the quality of consumption, to substitute intensification, so to speak, for expansion of demand. The former primitive satisfaction of needs cannot in fact be longer continued on an ever increasing scale. If selling capacity is to be increased, attention must be turned to the refining of requirements.

Out of the many problems connected with the population movement, the world wheat problem is the only one which will here be attacked, as being the problem which at the present time commands *most* attention. The wheat problem is in fact rightly designated a world problem.

Before turning attention to the production of wheat, the trade in wheat and wheat consumption, in relation to the population development of the world, consideration will first be given to these conditions as found in those countries which are of decisive importance in framing any judgment in regard to the world wheat problem. These are in the first instance the principal European wheat importing countries and the overseas wheat exporting countries, whereas the significance of the remaining countries for the problem is subsidiary. The discussion of the situation in the principal wheat importing and exporting countries will accordingly be followed by the survey of the world wheat situation as a whole.

(1) BRINKMANN, *loc. cit.*

(B) POPULATION DEVELOPMENT, WHEAT PRODUCTION, IMPORTATION AND CONSUMPTION IN THE PRINCIPAL EUROPEAN WHEAT IMPORTING COUNTRIES.

In the consideration of the conditions existing in the most important of the European wheat importing countries there is justification for treating the conditions in Germany, on account of their special character, apart from those in the other countries taken together.

I. — GERMANY.

1. — The Population Development.

During the period under review the population of Germany increased at a nearly uniform rate with slight fluctuations from 1900 to the time of the outbreak of war in 1914.

If however this movement is considered in more detail (see the lines indicating trend in Graph I a), it cannot escape notice that this tendency to increase, after a violent break in 1905, begins quite slowly, but still evidently, to decline. This slowing of the rate of increase in population is the consequence of the decline in the birth rate which had already begun about 1890, but became more marked from 1901 to 1913.

In Germany the number of children to a marriage, reckoning the legitimate and illegitimate births together, were as follows for the succeeding periods (1):

1871-80	4.5
1881-90	4.7
1891-1900	4.4
1900-1913	4.0
1919-28	2.1
1929	1.9

During the war years 1914 to 1918 there was at first a stationary condition due to the call to arms of the classes liable to military service and to the war losses, but from 1915 onwards there was a marked decrease in population.

After the end of the war the population increase was none the less very small as compared with that of pre-war times, since in consequence of the changed standards of living among the masses of the population at large as well as of the deterioration in conditions of life among the German people, the conscious restriction of births had become almost universally accepted. This tendency has become so strong that in Germany the transition is already going on from the two-child to the one child family, as may be seen from the foregoing table. According to the investigations of eminent statisticians the position in Germany

(1) KAHN, *loc. cit.*, S. 12 et seqq.

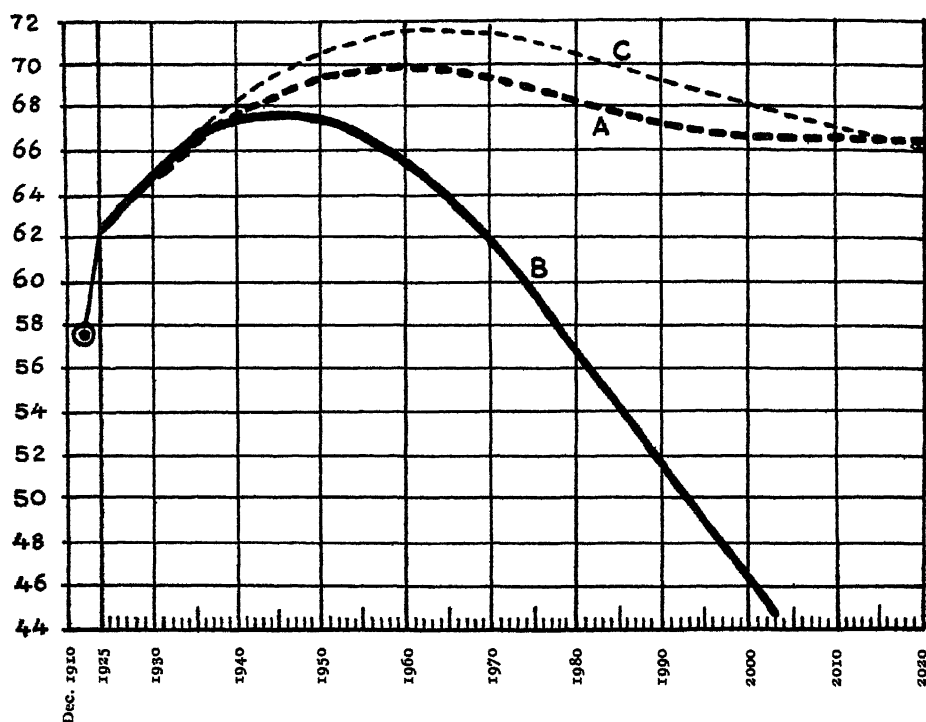
is already that of a decreasing population. It is true that there is still a continuous increase, although the average, calculated as essential for the maintenance of the population numbers, *viz.*, three children to a family, is now replaced by 1.9 only. The explanation of this lies in the abnormal age-grouping of the population in Germany of to-day. Before the war there were only 9.5 million persons between the ages of 20 and 30 years, the ages during which some three fourths of the marriages made are contracted. At present there are some 12.5 million persons of those ages, a fact mainly accounting for the large number of marriages contracted at the present time. This abnormal age grouping, in consequence of the relatively lower density of the older age groups, affects the mortality rate, but will cease to do so when the numerous young people of the present have become the large class of old and elderly people of tomorrow. On the other hand the "marriage conjuncture" already mentioned leads to a partial equivalence, instead of relatively fewer but prolific marriages there are now more marriages but with fewer children. This "high tide" of marriages must however shortly come to an end for lack of candidates for matrimony and, at the latest, when the small age groups of those born during the war reach the age of marriage. It is in any case beyond dispute that the natural increase of the German population will cease; within one decade the figures of births and deaths will cancel out. Naturally no one can say whether the decline in the population will be slow or rapid. The difficulty in making any such forecast is due to the fact that it is impossible to foresee the degree of the duration of this reduction in the number of children, and all statistical calculations become more problematic in proportion as they outstrip actual happenings. No one can say whether the decline in the birth rate will become less or more marked, or whether there may not even be once more an increase, or whether the efforts made to prolong life will not have unexpected success or even whether pests or wars may not cause ravages among large masses of human beings.

The Statistical Office of the Reich has made calculations in regard to the future development of the population of Germany up to the end of the 20th century and have made such a choice of bases that the actual movement may be anticipated with a degree of certitude within the limits laid down.

It may be safely assumed that conscious limitation of births will become prevalent as time goes on also among the majority of those strata of the population which at present are still prolific, but it is scarcely possible to make any pronouncement as to the degree in which fertility will decline in consequence of the practice. This degree of decline will be determined not only by the changed outlook on life among the masses of the people, but also by the economic situation. It is for this reason that the most favourable population development, *viz.*, the development supposing that the number of living births remains unchanged, is also the least probable (Case A.). It may be supposed that the actual development will tend to be that of Case B. *viz.*, that the birth frequency will fall 25 per cent. below the already low average level of the present time. This may seem somewhat too pessimistic, but the possibility is by no means excluded that in the event of an actual worsening of the conditions of existence among the German people, the birth frequency may fall still further.

Any calculation of this kind is bound to leave out of count the mortality conditions and also the migratory movement. While, in view of the position of the international population movement, the prospects of a considerable immigration into Germany are certainly not excluded, there is little likelihood of such a phenomenon, since the neighbouring countries also show steep declines in the birth rate.

Probable development of population in Germany
(Total numbers of the population).



A) Assuming the number of living births to remain the same:

B) Assuming that up to 1955 the number of births will diminish by 25%, afterwards remaining stable.

C) Assuming the frequency of births to remain the same.

Taken from the "Statistik des Deutschen Reiches" vol. 401, II.

From these considerations it appears that up to about 1945, Germany may count on a population increase of about 3.5 to 4 million, but after that, if the numbers of births still continue to decline, the population will shrink with increasing rapidity. The German population will in this way possess an extraordinarily unfavorable age-grouping.

2 -- The Development of Wheat Production in Germany.

(a) *Development of Areas under Wheat Cultivation*

The crisis in cereal cultivation which began in the seventies of last century passed after the lapse of more than a quarter of a century. In Germany the recovery was greatly helped by the tariff increase resolved on in 1902 and brought into effect in 1906 (see Graph Ia). During the years 1906 and 1907 the effect of this tariff increase was that the price relation between wheat and rye altered very considerably in favour of rye, and consequently in 1907 there was a reduction of the area under wheat cultivation. On the re-establishment of the equilibrium of the prices, however, wheat growing steadily extended with a few setbacks only, and in 1915 the area under wheat was almost equal to the largest ever covered by the crop (*viz* 2,049,000 hectares in 1890-1900), an area which in other circumstances might possibly even have been exceeded. From 1915, owing to the effects of the war, there was an extraordinary diminution in wheat growing. From 1919, however, and up to 1927 there was again a large increase which was interrupted only by inconsiderable fluctuations. In 1927 under the influence of measures for the protection of rye and also of an exceptionally large importation of wheat, the price ratio between wheat and rye altered in favour of rye, with the result that in 1928 there was a slight reduction in wheat cultivation. As this unfavourable price relation continued in 1928, wheat cultivation underwent further decrease, which assumed disastrous proportions in consequence of the serious effects of the exceptionally cold winter of 1928-29. At the beginning of 1929 a more favourable level of wheat prices was restored owing to the tariff protection policy and the introduction of the obligation to mill German wheats, and in 1930 a large expansion of the cultivation followed, while a further extension resulted from the propaganda in favour of a transition from rye to wheat growing which was put forward at the same time as the protectionist policy. In 1931 the fixing of a quota for the cultivation of sugar beet had the result of increasing that of cereals and especially of wheat. At the same time, owing to unfavourable livestock prices, there was a change over to wheat growing in large areas of Germany, especially in the north, north-west, west and south. All these factors contributed to make the area under wheat in 1932 attain the record figure of 2.28 million hectares. This transition from rye to wheat is an achievement which has not received sufficient attention owing to the adverse conditions and want of capital prevailing in German agriculture, but on the other hand it is one which may eventually produce fresh dangers for the only agricultural product which is still remunerative.

(b) *Development of Unitary Yields.*

After the cereal crisis was surmounted and from the beginning of 1890 intensification of German agriculture was undertaken on a large scale. With the rapid growth of the population there was a shrinkage in the subsistence

margin, and on this account and even more because of the decline in farming receipts due to the low prices of wheat, efforts were made to remedy the situation by securing higher yields per unit of area. These yields rose from about 16 quintals in the nineties to about 22 quintals in the pre-war years.

Under the influence of the war economy measures this tendency to increase yields was followed by an abrupt decline up to 1917. In 1918 the yields again somewhat increased, but the conditions prevailing in first post-war years (long-continued exhaustion of soil, poor cultivation, prolongation of the control measures, and beginning of inflation) were far from favourable to such increase. The recovery of German agriculture begins with the removal of control, and from 1921 there was a relatively rapid rise in yields per unit, although with unprecedentedly large fluctuations, and in 1928 the high level of 1912 was again reached. From 1929 to 1931 there was a decided fall in the yields due to unfavourable weather conditions, but in 1932 the average yield was once more 22 quintals par hectare. The exceptionally large post-war fluctuations were mainly due to a recurrence of unfavourable weather conditions and were not confined to Germany. In spite of the continued extension of cultivation to lands less suitable for wheat, there has been but little diminution in yields per unit of area.

(c) *Development of Aggregate Wheat Production
and of per capita Production.*

The area under cultivation multiplied by the yield per unit of area gives the total crop production. As is shown by Graph I a, the large pre-war increase in the total production is to be attributed to intensification or increase in yields per unit of area. The post-war wheat production also shows a rising tendency but it is the area rather than the yield per unit which increases. In the agricultural year 1932 the wheat production not only greatly exceeded the pre-war average but also the maximum crop of 1913 which amounted to nearly 400,000 tons.

If a relation is established between wheat production and population, the somewhat surprising fact emerges that the per capita pre-war production in spite of the large increase in population not only remained nearly the same over the period but in 1911-13 it actually increased. It is true that in 1902-07 a quite small drop in the per capita production is noticeable, but it is followed in subsequent years by a steady rise, so that in 1913 the highest quota was reached. Even if the growth of population had continued at the high rate of the period before 1904, the actual increase in wheat production would have been proportional, and in consequence the *per capita* production would have remained the same.

In the post-war period there was a slow but steady rise in the wheat production which had been greatly depressed by the effects of the war and the control measures. The increase in production was more marked than of the population, so that in 1928 the *per capita* production had already reached the level of the average of 1900-1910. As the consumption of wheat had declined,

this rise in crop production led to a price crisis and necessitated measures of protection on the part of the *Reich*. The crops of the years 1929, 1930 and 1931 were poor, the first in consequence of the disastrous winter, and the two latter in consequence of persistent rainfall. In the season of 1932 the *per capita* production exceeded not only that of 1928, but also by 7 per cent. that resulting from the record crop of 1913. The prospects as regards wheat prices are accordingly somewhat gloomy.

3. — The Net Wheat Import.

During the pre-war period the net import of wheat into Germany varied round 1.9 million tons, the quantity depending as a rule on the result of the German harvest. Since the high import figure of 1907, there has been a tendency towards decrease in imports corresponding to an increasing home production.

From 1914 to 1918 there was an almost complete cessation of imports, and in the first year after the war, the quantity imported was very small.

In 1920 the wheat import began to recover, but the quantities imported were still insignificant. In 1921 on the other hand immense masses of wheat were poured into Germany, partly as remedying the extreme shortage of food-stuffs in the country, partly under pressure of the large overseas stocks. This wave of importation, however, ebbed almost as quickly as it had flowed, under the influence of inflation which acted in restriction of imports. In 1923 the imports had dropped again to the low level of 1920.

With the stabilisation of the German currency at the end of 1923, and as a result of the foreign credits made available to Germany, the wheat imports once more began to increase from year to year, till in 1927 a maximum of about 2.6 million tons was reached, and this in spite of the reduction of population due to territorial changes, the highest import figure ever attained for Germany, being in fact reached in this year. This flooding of the country with foreign wheat resulted in the enactment by Germany of measures of protection intended to ensure the progressive reconstruction of German agriculture by means of a large increase in national production. These measures together with a decided fall in the credit concessions brought about in 1928 a considerable drop in imports. As the pressure from the side of the national production became stronger the protection measures were in 1929 rendered essentially more effective by the introduction of compulsory milling of a percentage of home grown wheats. The milling quota for home wheats was repeatedly raised, and with effect from 15 August 1931, was fixed at 97 per cent. for the agricultural years 1931-32 and 1932-33. This step was taken in order to counteract the price depression that might, with the great increase in the areas under wheat, easily result from the limited absorption capacity of the market if the farmers in want of cash attempted to realise their crops too hurriedly. To meet the seasonal pressure, especially in autumn, measures were taken for financing the new crop and for facilitating the movement of grain. By means of free import permits a re-export extending over the whole year is made possible. The result of these measures was that the net wheat import in 1931 amounted only to about 520,000 tons, that is to say, it

was reduced to the quantity considered indispensable for mixture if a flour of good baking quality is to be obtained from German wheats. As the German wheat production of 1931 did not fully cover requirements, the Government was compelled by lowering the duties to give facilities for import in May and June of 1932. The regulations as to compulsory admixture of home wheats remained in principle the same, but a lower rate of admixture was allowed under certain conditions if it was a case of milling wheats imported under the more favourable terms of the Government enactment referred to.

The protection measures of 1931-32 are equally in force for the crop year 1932-33 and supplemented by measures for maintaining the price level of wheat

4. — The *per capita* Wheat Consumption.

The *per capita* wheat consumption, (i. e. the *per capita* quota of the total quantity available which is equal to the national production plus the excess of imports) fell between 1904 and 1910 slowly but continuously from 95 to 88 kg. The apparently sharp decline in 1908 is explained by the utilisation of the stocks remaining from the large importation of 1907 which in consequence of the national harvest had exceeded requirements. Following on the great increase in yields which began in 1911 and on the simultaneous increase in purchasing power, the quantity of wheat available per head rapidly increased and reached a maximum of 96 kg in 1913. This development is also seen, as will appear, in the other European wheat importing countries.

In 1914 this development was interrupted by the world war. First imports stopped, and then the national production began to decline. If at first the areas under wheat showed some expansion, yields per unit of area soon rapidly diminished. With the complete cutting off of Germany from the world market, the available quantity of wheat was as early as 1915 no more than the national production and in 1917-19 fell with that to about one-third of pre-war quantity. It was not till 1920 that the wheat import was, although slowly, resumed and together with the increasing national production brought about a rise in the *per capita* wheat quota. The extraordinarily high wheat import of 1921 which was occasioned by the pressure of world stocks, together with still larger increases in national production, brought this quota almost up to the pre-war figure. The effect of the restriction of imports due to inflation was the less noticeable as national production was increasing and wheat consumption was declining. After the stabilisation of the currency however wave after wave of wheat imports rolled in on the country. The importation reached its maximum in 1927, when it stood at 30 per cent. higher than before the war, so that the *per capita* wheat quota, owing to a still increasing national wheat production, was above the pre-war average. At the same time, there was an actual decrease in, and in consequence there was an accumulation of stocks.

In consequence of the price crisis which was becoming acute, more drastic protection measures were introduced which at once reduced the imports and lowered the *per capita* wheat quota. The compulsion to mill national wheats still further reduced the imports. Accordingly, as the home crops of 1929 and 1930

were poor, the *per capita* wheat quotas in 1930 fell quite considerably below the requirements, so that recourse was had to utilisation of the stocks remaining from 1927 and 1928 and to a larger import of wheat in the spring of 1931. The crop of 1931 nearly covered requirements, so that only a small import was necessary; the crop of 1932 on the other hand quite covered the German requirements, but there was none the less an import of wheat, partly on technical grounds of baking quality, and partly as the result of a special regulation, whereby a part of the German crop was not utilised.

5 — The Covering of Wheat Requirements.

As shown by Graph I-b, in the pre-war period about 65 per cent. of the wheat requirements was met by the national production and the remaining 35 per cent. was imported. Since 1905 the proportion of imported wheat in the *per capita* supply of the German population began to decline, with slight fluctuations, slowly but continuously till in 1913 it stood at 27 per cent. In the war years Germany was obliged to depend on the national production only. In the post war period the proportion of imported wheats in the national supply at first increased rapidly and in 1927 was as large as 45 per cent. The movement for protection then began and quickly reduced the proportion of the import to 25 per cent. in 1930 and actually to about 10 per cent. in 1932. Germany has been among the principal purchasing countries in the international wheat trade, but the German farmer has been and is the principal supplier of the German market, and as conditions now are it may be that he will in the future be the sole supplier.

6. — The Outlook.

It is impossible to say with any certitude in what direction the conditions prevailing on the German wheat market will develop. It depends on a number of factors the effect of which cannot be determined in advance. On the supply side such factors are extension of cultivation, yield increases, crop returns and wheat imports; on the side of demand the main factors are the rise, stationary position or fall of the population figures, the variations in the *per capita* wheat consumption.

As the statistics of areas under crop show, the farmers have responded with surprising rapidity to the pressure put upon them to change over from rye to wheat growing, and if the information is to be trusted, the rise in yields per unit of area has also gone so far that steps must already be taken to guard against the dangers of over-production.

There is an increasing consumption of wheat in consequence of the increase in population, but the rate is slow corresponding to the slowing down of the rate of increase of the population, and the increase may disappear altogether or become a decrease.

It is quite other with the *per capita* consumption. If under the influence of the war and the inflation there was up to 1925-26 a marked decline in wheat

utilisation per head following on a reduced consumption of bread, there is anew a tendency to eat more bread, which, for reasons readily intelligible, is most noticeable in regard to wheat bread. From 1925-26 to 1928-29 there was a decided advance in the actual consumption of wheat, which in 1928-29 exceeded quite considerably the pre-war utilisation. With the further onset of the crisis and the accompanying reduction in purchasing power, the consumption however, from 1928-29, sharply declined.

Consumption of Flour and of Wheat per head of the German population.

Year	Rye-flour		Wheat-flour		Total flour			Consumption of wheat (Wheat flour reduced to wheat)	
	kg.	%	kg.	%	%	kg.	%	kg	%
1912-13	65.42	53.77	56.25	46.23	100	121.67	100	80.36	100
1924-25	58.08	53.38	50.73	46.62	100	108.80	89	72.47	90
1925-26	60.56	55.30	48.96	44.70	100	109.52	90	69.94	87
1926-27	55.00	51.10	52.63	48.90	100	107.63	88	75.20	93
1927-28	49.37	47.50	54.57	52.50	100	103.94	85	77.96	97
1928-29	49.50	45.54	59.20	54.46	100	108.70	89	84.57	105
1929-30	48.00	48.00	52.00	52.00	100	100.00	82	74.36	92
1930-31	50.00	52.63	45.00	47.37	100	95.00	78	64.35	80
1931-32	48.00	54.00	41.00	46.00	100	89.00	73	58.63	73

The end of the crisis and an upward movement on the market would no doubt bring a rise in the *per capita* wheat consumption. It need not be assumed that the consumption of wheat will decrease in the same degree as the population, since an expansion of the use of wheat precisely among the classes with low incomes is quite within the bounds of possibility. In this connection however there must be kept in mind the possibility of a return from consumption of wheat to that of rye.

The bumper wheat crop of 1932 has for the first time rendered clearly visible the spectre of surplus wheat with all its prejudicial consequences. As might have been expected, the compulsory percentage of national wheats for milling has been fixed for 1932-33 at 97 per cent. Certain mills, however, members of the Consortium of German Wheat Mills established in Berlin under the contract of 6 July 1932, are for the period 16 August 1932 to 15 August 1933 milling foreign wheat, imported under the tariff modification Order of 6 July 1932 free of duty or subject to the duty of 0.75 RM. per quintal only (*Austauschweizen*). For such mills for the duration of their membership of the Consortium the milling proportion imposed for national wheats is reduced to a minimum of 70 per cent.

In this case foreign wheats other than the wheat imported under the above conditions (*Austauschweizen*) cannot be milled in a higher proportion than 3 per cent. of the total quantities of wheat milled during the separate milling periods or months. Among financial measures there may be mentioned the advances made on delivery contracts and loans made on warehousing warrants. It is

possible to obtain advances on future grain delivery contracts up to 50-60 per cent. of the value of the grain to be delivered, also to secure payments by instalments up to 70 per cent. of the value of the grain on grain delivered to store with the condition that the supplier may on his side fix within three months the actual date of the sale as well as the final selling price, thus taking the advantage of the market situation. In addition efforts are made by the Government to encourage any tendency on the part of the mills belonging to the consortium to absorb national wheat. In addition special subsidies in aid of warehousing costs and reductions of rates of interest are granted, if the wheat placed in store is kept off the market up to the dates fixed.

Among the new measures affecting the wheat trade is the coloured wheat enactment which came into force February 1933. This coloured wheat is substituted for maize as a poultry feed and the measure is expected to effect an additional utilisation of wheat up to 250 to 300 thousand tons. The object is again to restrict unnecessary imports in favour of the national products.

It is in this way that it will be possible to maintain the price of wheat at a level acceptable to the farmer. At the same time a growing danger exists of the further extension of the areas under wheat, owing to the privileged position of wheat in regard to prices, to the point at which the national production may outstrip the national demand. Although in Germany the volume of the crop depends on the seasonal crop and harvest conditions rather than on the area under crop, a production in excess of the national demand must be carefully avoided.

If under the prevailing agricultural policy it proves possible to prevent the production of wheat from exceeding the demand or in certain circumstances to limit it, then German wheat growing may be regarded as assured, and the population may be supplied with national wheats at a relatively low price, corresponding to the general price level. Taking this movement into account it may be said that the import of wheat is likely within the near future to be of secondary importance for the supplying of the German market.

II. — THE PRINCIPAL EUROPEAN WHEAT-IMPORTING COUNTRIES.

In this enquiry the following countries are dealt with :

- | | |
|-------------------------------|------------------|
| (1) Great Britain and Ireland | (7) Switzerland. |
| (2) Germany | (8) Denmark. |
| (3) Italy | (9) Spain. |
| (4) France | (10) Sweden. |
| (5) Belgium | (11) Norway. |
| (6) Netherlands | (12) Portugal. |

The Succession States, Austria, Czechoslovakia, Poland are not included, as comparable material for an enquiry referring to a period of the length required is not available. There need be no scruple as to their omission, since the wheat importation into these countries is not large and the greater part is

covered by the supplies from the Danube countries. These importing countries not included in this statement have together a wheat import requirement of about 600,000 tons. As against this the Danube countries, Rumania, Hungary and Yugoslavia, had on an average from 1925 to 1929 a total export wheat surplus of one million tons, so that their omission is of no importance.

1. — Population Development.

The aggregate population taken of the 12 countries under review between the years 1900 to 1914 showed a considerable nearly uniform increase with slight fluctuations. There were certain "signs of fatigue" in the years 1902 and 1911, but these were compensated for in the following years by correspondingly larger increases. To examine the causes of these phenomena would lead us too far afield, since it is a questions of aggregates.

In 1914 this tendency in development was interrupted by the war.

During the war years 1914 to 1918 the population declined very markedly in consequence of the call to arms of those liable to military service and of the war losses.

In the post war period, in contrast to the pre-war years, there was only a relatively small increase in population. From 1927 this increase has shown still further decline (see lines of trend shown on Graph II a). The limitation of births as a mass phenomenon is here taking effect in noticeably slowing down the population increase. It can be established that the limitation of births has assumed now much larger proportions among the Germanic peoples than among the Latin nations as appears from the following survey: (1)

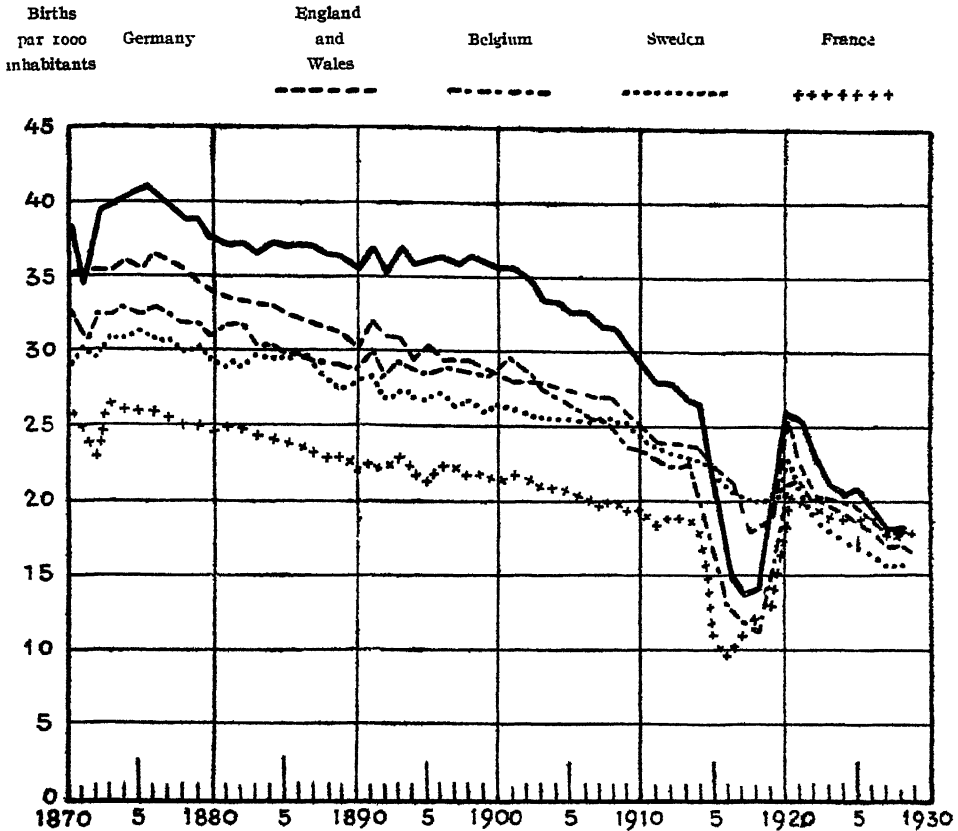
Number of Births resulting from a Marriage.

Country	About 1900	About 1929
Great Britain	3.7	2.06
Ireland	4.4	4.10
Germany	4.4	1.94
Italy	4.5	3.60
France	2.9	2.18
Belgium	3.5	2.80
Netherlands	4.2	2.90
Switzerland	3.8	2.20
Denmark	4.1	2.50
Spain	4.9	3.90
Sweden	4.5	2.60
Norway	4.3	3.00
Portugal	?	4.50

(1) After KAHN, *Der internationale Geburtenstreck*, S. 64-65.

If and when the relative decline in population of these 12 countries will result in an absolute decline, it is difficult to say, since this movement proceeds with very different intensity in the separate countries. Here for the moment the fact may suffice, that France was the first country, owing to the very early introduction of birth restriction, to show an excess of deaths and that its population would have for a long time shown decline except for the direct or

The Birthrate in five Countries of North-western Europe, 1870-1929 ().*



indirect effects of mass immigration. Further in Great Britain, seeing that the reduction in the number of children came earlier, mortality and birth curves might presumably coincide sooner than in Germany. The increase of the population of Great Britain in the decade 1921 to 1931 is due to the considerably lowered mortality and not to any increase in the births. The number of births in this decade is about 16.3 per cent. lower than in the decade 1911-21, although that period includes also the war years with their falling-off in births.

(*) O. E. BAKER: "The Outlook for land utilization in the United States".

The further marked decline in the number of births, which was to be observed in most of the European countries in the first half of 1931, was still more accentuated in the second half of that year. As a result the number of living births in 1931 was everywhere, with the exception of some smaller States, noticeably lower than in 1930, in which year, as compared with 1929, there had been in all European countries (apart from Germany) a not inconsiderable rise in the figure.

In 1931 the countries showing, after Germany, the most marked decline in births were Italy, Hungary and Poland. In Italy the number of births was less by 6.9 per cent. than in 1930, in Hungary 8.5 per cent., in Poland 4.9 per cent. In France, Great Britain, the Netherlands, Switzerland, and Norway the decline in births amounted to between 2.5 and 3.5 per cent.

The mortality figures rose in 1931 as compared with 1930 by about 0.6 per cent. in France, by 1.0 per cent. in Hungary, and in Italy, the Netherlands, Switzerland and Norway by from 0.5 to 0.7 per cent., while in Germany these figures were only 0.1 per cent. higher.

For this European area of first importance then the trend of population development, although there are differences in degree, is everywhere the same, so that the natural increase of population appears to be nearing its end.

2 — The Development of Wheat Production.

(a) *Development of Areas under Wheat Cultivation.*

After the surmounting of the price crisis in cereals the growing of wheat reached in 1904 in the countries under survey a maximum extension which was maintained almost unaltered up to 1913. In 1914 a somewhat large diminution of the areas under cultivation began. This reduction continued in France (and Portugal) while in the other countries cultivation remains constant or even shows some increase. As an effect of the war, wheat cultivation was reduced between 1915 and 1917 by 17 per cent., but not so much as might have been supposed. Although the reduction in the areas under wheat cultivation in the countries most affected, Germany, France and Belgium, amounted to 3.2 million hectares, the total reduction was only about 2.6 million hectares. From 1917 there was a steady increase, with slight fluctuations, in the area under wheat up to 1927, although the pre-war extent of cultivation was not again reached. The position in France was a deciding factor here, where the area under wheat was in 1919 less than the pre-war area by about 1.8 million hectares and in 1927 was still some 1.3 million less. In 1927 under the influence of the world wheat crisis a larger diminution in the area under wheat began to appear, affecting all the countries with the exception of Portugal, Sweden, Norway and Switzerland. Under the influence of the general movement in favour of protective tariffs the area under wheat expanded from 1930 onwards, and in 1932 once more reached the highest pre-war level, that of the years 1904 and 1905. As this movement seems likely to continue, a further extension has to be reckoned with. In any case the area under wheat in the principal wheat importing countries of Europe remains remarkably constant.

(b) *Development of Unitary Yields*

Although there have been considerable fluctuations of yield per unit of area, there has been no essential modification in the average, as compared with the prewar period. A definite relation between area under cultivation and yield may undoubtedly be established, and from this it appears that wheat growing is now extended to the limits of the lands capable of wheat production; this interdependence is not however so marked as not to be subsidiary to weather conditions. During the war up to 1917 crop yields showed both absolute and relative decline, although not to any great extent. A pronounced rise in crop yields then followed, although with wide fluctuations, such as have already been noted in the case of Germany, as consequent on weather conditions, and in 1929 a record figure was reached. The yield per unit of area in 1929 stood 22 per cent. higher than the average of 1901-1913, and 10 per cent. above the highest pre-war yield in 1909. In 1930, in consequence of unfavourable weather conditions, the yield declined, and also owing to bad weather the yield of the year 1931 was relatively low. In 1932 a record production was again obtained which was 15 per cent. above the highest pre-war yield, and 5 per cent. above the yield of 1925.

Under the influence of the protective tariff and the tendency towards national self-sufficiency a further advance in yields may be counted on as a result of intensive cultivation.

(c) *Development of Aggregate Wheat Production
and of the per capita Production.*

As appears from Graph. II a, the total crop production in the prewar period had remained, in spite of the slight shrinkage of areas under cultivation, nearly at the same level in consequence of somewhat higher yields per unit of area, and in fact showed a slight increase. In the post-war period, on the other hand, a very considerable increase took place owing to the marked increases in yields due to intensification. In spite of the fact that in 1929 the areas under cultivation showed a 7 per cent. reduction as compared with the pre-war areas, the aggregate wheat production was 10 per cent. larger than in the last five years of the pre-war period.

If the wheat production is brought into relation with the population the somewhat surprising result is obtained that the *per capita* production in the pre-war period remained nearly at the same level in spite of the rapidly increasing population. Only a very slight diminution is noticeable.

During the war years the *per capita* production fell till 1917 to about 65 per cent. of the pre-war production.

In the post-war period the greatly reduced *per capita* production slowly but steadily increased, and reached, although with wide fluctuations, the pre-war averages in 1925 and again in 1929. In 1926, 1927, 1928, 1930 and 1931, unfavourable weather conditions resulted in a noticeably smaller *per capita* production, but in 1932 a maximum of 114 kg. *per capita* was reached, which

is about 5 per cent. more than the highest figure of the pre-war period. The movement for self-sufficiency in the countries concerned goes to prove that by means of a high degree of intensification, and by the increased yields accompanying such intensification an increased *per capita* production of wheat may be brought about.

3. — The Net Wheat Import.

In the countries under review the net imports of wheat showed up to 1908 considerable reduction, but from then till 1913, with a slight interruption in 1912, there was a still more considerable increase. This advance was abruptly checked by the outbreak of the world war in 1914. When the war was over wheat importation again increased considerably and in 1920 the average importation of the pre-war years 1911-13 was once more reached and was maintained at this level up to 1926 with relatively small fluctuations, corresponding to the crop results of the importing countries. In 1927 under the pressure of the large harvests and the stocks of wheat in the overseas countries the wheat imports went up with a rush, and the consequence was that in almost all countries measures were taken for the protection of agriculture, in particular the compulsory milling of home grown cereals, and accordingly since 1927 the imports of wheat into industrial Europe have once more markedly declined.

4. — The per capita Wheat Consumption.

The consumption of wheat per head of population, *i. e.*, the *per capita* quota of the total quantity available, which is roughly (1) equal to the national production *plus* excess of imports, remained during the pre-war period and even up to 1916 at nearly the same level, apart from somewhat wide fluctuations, and showed a slight increase rather than a reduction. In 1917, owing to war conditions, together with an unusually poor harvest, there was a sharp decline in the available quantity of wheat *per capita*. With the increased national production of 1918 this quantity was again somewhat increased, in spite of the further decline in the wheat imports. On the conclusion of the war, the wheat import was at once re-established on a large scale, but the home grown crops were still small, so that with the rapidly increasing population due to the return of the troops, prisoners and refugees) the available per capita wheat quota was again reduced up to 1920. In consequence however of the efforts for self supply in nearly all the countries under consideration, there was an intensification of cultivation leading to a large increase in the home grown crops, so that, although there were considerable fluctuations, the 1911-13 average was again reached in 1927 and the per capita available quota in 1929 approached the highest pre-war supply of 1911. In 1932 there was a further 6 per cent. increase.

(1) In a more accurate calculation of consumption the quantities of grain used for sowing should be taken into account, as these may change considerably with changes in the areas sown.

5. — The Covering of Wheat Requirements

Before the war the home production of the countries under review accounted for about 66 per cent. of the available wheat supplies, while about 34 per cent was imported. While from 1903 to 1908 the proportion imported slowly but steadily declined, from 1908 to 1913 it again increased and reached the level of about 40 per cent of the whole supply. Although with the outbreak of war in 1914 this proportion at once declined, it again rose quickly to 50 per cent. (Germany excepted) up to 1916, and then declined up to 1918 to 38 per cent. In the first year after the war there was a slight increase in the proportion of imports in the wheat supply, but under the influence of the efforts for autarchy on the part of the importing countries, up to 1926 there was a slow but steady declining tendency with a slight interruption in 1924, the period of currency stabilisation in Germany. In 1927 under the influence of two poor harvests (1926 and 1927) there was a sudden marked rise in the proportion of imports but in the following years every means was taken to counteract this by high tariffs, compulsory utilisation of home supplies, etc. In the import season 1930-31 following on small wheat harvests in the countries under review there was an insignificant increase only in wheat import requirements, a fact giving proof of a further decline in these requirements in industrial Europe.

6. — General Outlook.

The future shaping of conditions on the European wheat markets depends on a number of factors, the effects of which cannot be determined in advance, and may be completely different in the different countries, or even actually conflicting. Extension of cultivation, increase of yields, crop results and wheat importation on the side of supply, advance, stationary condition or decline of the population figures as well as of the *per capita* consumption of wheat on the demand side, all have their decisive influence on market conditions.

The area under wheat cultivation for 1931 and 1932 shows a further increase; there is also a marked rise in the yields per unit of area which are considerably over the pre-war yields per hectare, although with wide fluctuations. The yields per unit for 1930 and 1931 were relatively low in consequence of unfavourable weather conditions, but the relatively good conditions of 1932 resulted in a high unitary yield. All tends to show that the increase in the unitary yields is continuing.

An increasing consumption of wheat has followed on the growth of the population, but the increase is slow in correspondence with the slowing of the increase in population figures. Owing to the varying structure of the population in the countries concerned it is impossible to forecast when, if at all, there will be a stationary condition or an absolute decline in the population.

It is not easy to obtain reliable data as to the *per capita* consumption of wheat in the countries under consideration. It is established that in nearly all the countries in question the consumption of bread grains has declined in the post-war period by from 5 to 10 per cent. In the Scandinavian countries and in

Germany this is almost entirely due to a smaller consumption of rye, while the wheat consumption has risen. In these countries an increase in the *per capita* consumption of wheat is still quite within the bounds of possibility. It is otherwise in the countries that are definitely wheat-consuming. In these, wheat consumption might perhaps in unfavourable economic conditions attain its prewar height once more, but will scarcely exceed it. On the whole it is unlikely that more than a very slight rise in the *per capita* consumption of wheat should be counted on.

In 1930 the wheat crops of industrial Europe were small, so that not only were the stocks accumulated in 1927-29 used up, but it was necessary to reckon with considerable wheat import requirements. This stimulation of the cereal markets did not last long. The calculation on the world wheat market is for a fairly considerable decline in the European wheat import requirements, in connection with which it is observed that the experience of Germany is that it has been possible to make do with a low percentage of the former wheat import while also greatly increasing areas under wheat. In the other countries efforts have been made to effect a more or less considerable modification in the import proportions by higher tariffs, milling, restrictions, etc. In this way *Germany* has nearly quintupled its duties as compared with pre-war times, and in addition since 1929 has introduced milling quotas for German wheats, the proportion of home grown wheat being fixed for the agricultural seasons 1931-32 and 1932-33 at 97 per cent. In the same way *France* also introduced by the law of 1 December 1929 the obligation to mill home grown wheats and fixed the milling quota of these wheats at 97 per cent. Later this quota was repeatedly raised and lowered, the average resulting at about 90 per cent. Subsequently a compulsory percentage of flour extraction was imposed at 66 per cent. Under the stress of the world market situation *Great Britain* gave effect to an Agricultural Marketing Act which contains decisive measures for the protection of its agriculture. On the other hand the milling quotas proposals, whereby the quota for wheats grown in the United Kingdom was to be 15 per cent., that for Empire grown wheats 50 per cent., while only 35 per cent. of the United Kingdom requirements were to be met by foreign wheats, did not become embodied in an Act. Instead early in May 1932 the Wheat Act came into force by which wheat growing in the United Kingdom is to be encouraged by means of certain subsidy payments. The original idea of enforcing an admixture of home wheats or of compulsory purchase and utilisation by the importing mills of certain quantities of home wheats was abandoned. A minimum price of 10s. per cwt. (or 45s. per quarter of 480 lbs.) is guaranteed to wheat growers for three years, *i. e.*, a standard price of double the world market price.

A guarantee against undue extension of areas under wheat is provided by a limitation of the maximum quantity of the wheat to be sold by the growers on these conditions to 6,000,000 quarters. If the supply of home grown wheat exceeds the estimate of the Wheat Commission established under the Act, then the subsidy, or "deficiency payment" will be proportionately reduced. The wheat sold by the growers must also be certified by the Commission as of millable quality.

Norway has a State Monopoly for export and import of cereals. In the summer of 1930 *Sweden* established a State Grain Commission for ensuring the absorption

of home grown grain by the market and for supervision of the observance of the compulsory admixture of Swedish ryes and wheats. In the *Netherlands* a law came into force on 4 July 1931 enforcing the utilisation of home grown wheats. Under this law provision has been made for a quota admixture up to 25 per cent (originally 20 per cent.) and minimum prices have been guaranteed. In the same way in *Belgium* the improvement in wheat prices demanded by the agricultural interests led at the beginning of September 1923 to the resolution taken by the Council of Ministers that in future 10 per cent., and from 1 January 1933, 15 per cent. of home grown wheats must be used in the milling of flour for breadmaking. In *Switzerland* by the Law of July 1929 and in *Spain* by one of June 1930 the trade in wheat and wheat flour has been placed under State control and guaranteed prices as well as milling premiums have been established. *Italy*, which was always a large importing country, has made it clear by the imposition of compulsory milling of 95 per cent. of home wheat, which came into force early in July 1931, by the raising of the duty on imported wheats and the introduction of the compulsory flour extraction percentage, that a determined effort is being made to modify the position as regards imports.

The process continues by which barriers are set up by the different countries for the protection of their national production. Under the influence of the attempts thus made in nearly all the countries under consideration to detach the home market in each case from the world market, the wheat import requirements of industrial Europe must inevitably undergo gradual shrinkage, and in consequence there is still impending over the world market the immense accumulation of stocks of wheat in America. In any case, in the long run, the importance of European agriculture for the wheat supply of Europe is likely to become still greater, while that of overseas agriculture will probably decline.

(C) POPULATION DEVELOPMENT WHEAT PRODUCTION, EXPORTATION AND CONSUMPTION IN THE PRINCIPAL OVERSEAS WHEAT EXPORTING COUNTRIES.

I. — THE UNITED STATES OF AMERICA.

1. — Population Development.

The population of the United States of America has shown since 1850 the following development :

Years	Population Increase %
1850	—
1860	35.6
1870	22.6
1880	30.1
1890	25.5
1900	20.7
1910	21.0
1920	14.9
1930	11.5

The figures clearly illustrate the relative steep fall in the rate of population increase in America, which is the more striking as the United States is an immigration country of importance.

Net Immigration into the United States of America (1)

1871-1880	2,812,191	1919	141,132
1881-1890	5,246,613	1920	430,001
1891-1900	3,687,564	1921	805,228
1901-1910	8,795,386	1922	309,556
1911	878,587	1923	522,919
1912	838,172	1924	706,896
1913	1,197,892	1925	294,314
1914	1,218,480	1926	304,488
1915	326,700	1927	335,175
1916	298,826	1928	307,255
1917	295,403	1929	297,678
1918	110,618	1930-31 1 July-30 June (a)	93,139

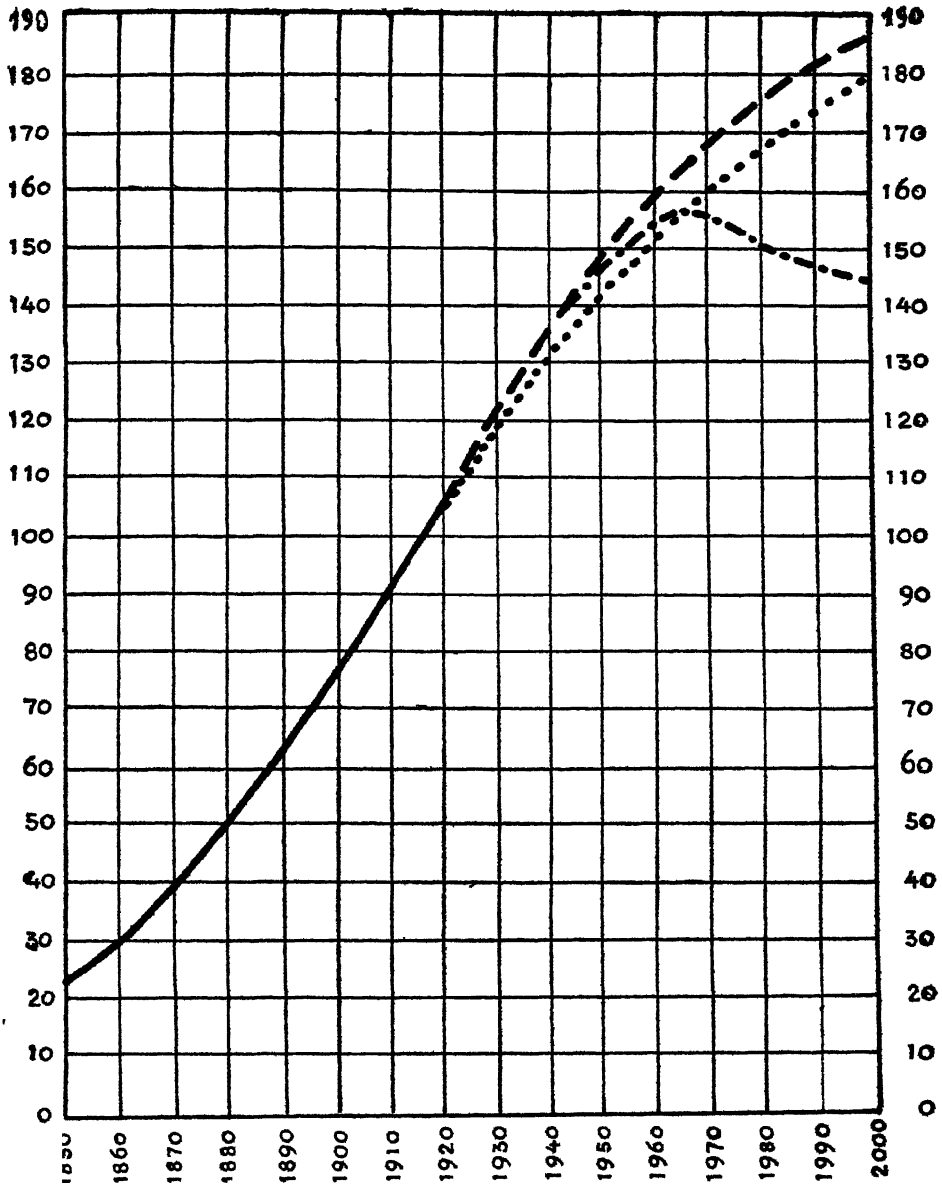
(a) Gross immigration.

In the period from 1820 to 1928 about 330,000 persons yearly, or a total of 36 millions, have entered the United States as immigrants, 8.8 million of whom entered during the decade before the war. The rate of the colonisation movement remained however much behind the expansion of the land under cultivation. The transition from an agricultural to an industrial State was accomplished with surprising rapidity in the United States with the help of the immigrants. If the trends of population at the time of the turn of the century are considered more in detail, it will be seen that in spite of the high immigration figures the rate of increase, after showing certain signs of "fatigue", was from 1908 decidedly slackening (see Graph IIIa). Thus here too is found a continuous decline in the birth rate, and in 1927 the proportion is only 2.2 children to a marriage. The tendency to decline in births is likely to be in the future much stronger in the States than in Europe, on account of the marked shrinkage in the immigration. For a change of world importance has been achieved in the United States without attracting attention; for the first time according to official records the tide of immigration has turned; that is to say, more persons leave the United States than come into the country. This is due less to the immigration laws of 1924 than to the strictness with which these have been enforced since 1931. The Immigration Commissioner states that since the War of Secession the number of immigrants has never been so small as in the census year 1930-31, in which only 93,139

(1) Statistical Abstract 1930.

The Population of the United States, 1850-1920 and estimates of population, 1930-2000 ()*

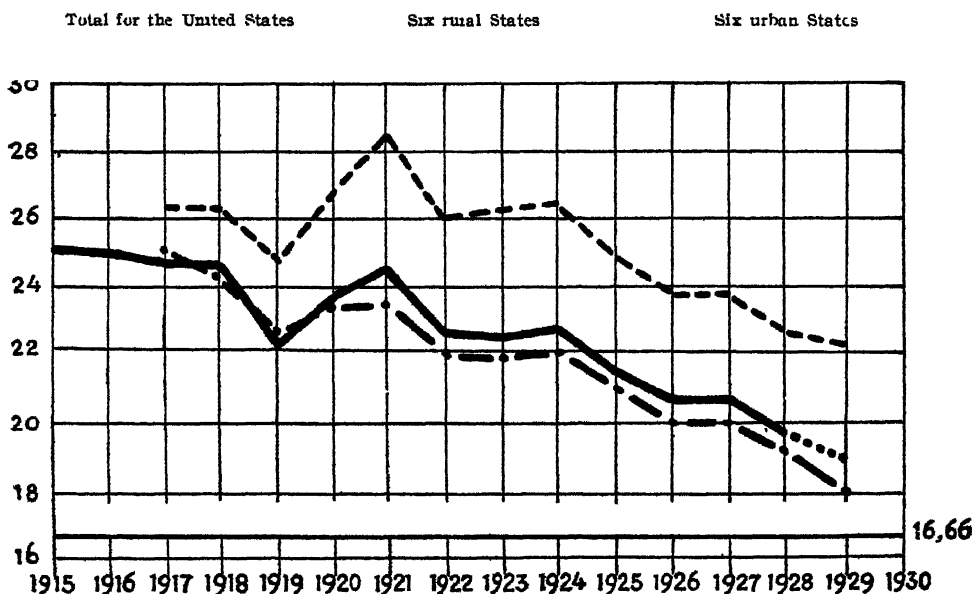
Based on estimates made by Pearl and Reed John Hopkins University	According to methods proposed by Sloss, Bureau of the Census	Established on the basis of the present births, immigration and of expectat on of life of 60 years
Millions =====	.....	----- Millions



*) O. F. BAKER "The Outlook for land utilization in the United States"

persons were admitted into the United States, or about one third less than the number officially sanctioned. In addition the Government on the basis of an obsolete clause of the immigration law paid for the return journey of such foreigners who were lawfully in the country, but who were anxious to avoid permanent unemployment in America by return to their own country. Care was taken that, by notices in American newspapers published in foreign languages, this readiness to pay the journeys was widely known. Such return cannot but have an effect on the birth rate, as the immigrants mainly come from countries and

*Birthrate per 1000 of the Population of the United States
for 1915-1928 in six Urban States, and for 1917-1928 in six Rural States (1).*



N. B. — 16,66 = the birthrate necessary for the maintenance of the present population.

from social strata where the number of children per household is large (see Graph III a). They were and still are those who raise the average of size of families, while the older settlers have long made the transition to restriction of births. Now that the immigration has been reduced to a minimum, this impetus is wanting. The first generation diminishes from year to year in numbers, and the second is already Americanised in respect of the size of the family. There is here no distinction between town and country. The development is the same in both (see graph as above).

A particularly rapid fall in the already low birthrate need thus occasion no surprise. As a matter of fact the birth rate in the eight years before 1930 fell from

(1) O. E. BAKER, *The outlook for land utilisation in the United States.*

23.7 to 19.7 per thousand. Since the fall in the death rate over the same period was less, the rate in fact having remained the same since 1920, there is a decline in the natural increase of population from 10.6 per thousand in 1920 to 7.3 in 1928. On the other hand the American manufacturing industries have so increased their outturn capacity as to outrun the absorption capacity of the home markets at the present time by 10 to 50 per cent. It is evident that a country the industry of which is organised on the assumption of a population increasing each decade by about 20 per cent. is exposed to disastrous consequences if there is a complete reversal of the tendency.

2 — The Development of Wheat Production

(a) *Development of Areas under Wheat Cultivation.*

Towards the close of last century the United States gradually ceased to be a country peculiarly fitted for agricultural colonisation. Its economic and social constitution alike were undergoing a process of transformation, and this contributed to the rapid surmounting of the depression of wheat prices in the seventies. In fact wheat prices rose as rapidly again. The population, of which a growing proportion was urban and industrial increased more quickly than did the areas under cultivation, so that the cultivable area available per head of population became gradually smaller. Since the "last west" was opened up and the immigration came, speaking generally, to a standstill, the United States have definitely lost their character as a country for large scale agricultural settlement. No further growth by territorial accessions is now possible. Economic conditions force American agriculture to adapt itself increasingly to the requirements of the industrial States, and compel the transition from "ranching" to farming proper. Whereas at the time of colonial expansion the settlers on the prairie lands preferred wheat growing to any other kind of farming, because no other production required so little capital and brought so speedily a return to the farmer, from the nineties up to the year 1909 in absolute and especially a relative decline in wheat cultivation took place. From 1910 to 1913 however it slowly increased again, and after the outbreak of war in consequence of the rise in prices there was a very considerable increase up to 1915. In 1915-16 this great expansion of cultivation suddenly brought about an absolute and especially a relative fall in prices, followed by an equally sudden restriction of areas due to the effects of the world war, the result being that in 1917 the extent of the areas under wheat was again reduced to nearly that of 1909. The conclusion of the war moreover brought a reversion to the exclusive wheat production characteristic of the years of colonisation. Stimulated by wheat prices that were both absolutely and relatively enormously high (Graph V) and by the apparently extraordinarily favourable marketing conditions in Europe due to the great demand for commodities, the areas under wheat cultivation underwent an immense expansion; from 1917 to 1919 there was an extension by about 12 million hectares, or 70 per cent. This expansion was confined to the so-called Western States, but the end was already in sight. Wheat-growing cannot be carried on where

the vegetative period is less than 90 days, or the precipitation under 350 mm, in fact the crop is very uncertain if the precipitation is only 350 mm. It also becomes impossible in a warm damp climate that favours the appearance of cryptogamic growths (1). The onset of the agricultural crisis compelled the American farmer to change his policy. Under the influence of the falling wheat prices from the middle of 1920 onwards and of comparatively high prices for live stock products there was again a considerable decline in wheat cultivation which in 1924 was once more in the position of 1914 or 1916, i. e., it had been necessary to place about 9.5 million hectares under other crops. This was also the position in 1925. This was followed by a renewed expansion, under the stimulus of absolutely and relatively encouraging wheat prices due to the stabilisation of currencies in Europe, and of the contemporary fall in production costs in consequence of the advances in mechanisation. The cultivation was even pushed further into the arid zones of the western provinces. This movement however came to an end in 1929 with a wheat area only about that of 1915. A further decline followed under the influence of the disastrously low world wheat prices. Wheat growing in the United States seems likely to show this declining tendency for some time.

In regard to the wheat areas per head of the American population, from 1900 to 1912 there was a decline amounting to about 33 per cent. owing to the large increase in the population and the adaptation of agriculture to the progressive industrialisation; under the influence of the world war up to 1915 the position in 1903 was regained, followed by a sudden fall to a minimum in 1917. Towards the end of the war a still more rapid expansion took place up to 1919, followed by an equally rapid shrinkage in consequence of the agricultural crisis, so that in 1925 the wheat area per head reached a minimum. It again increased somewhat up to 1927, but in 1930 began once more to decline, a tendency which will probably continue.

The apparent area under cultivation is however in no way identical with the areas harvested, as a more or less large percentage of the areas sown suffer from the effects of the winter, of drought or of hail, or are destroyed by floods, by insect pests or otherwise. If the ratio between areas harvested and areas sown (see Graph III a) be noted, it is clear that this ratio becomes more unfavourable as wheat production is carried further west. In particular the spring wheat in the western arid zones suffers to a greater or less extent every year, so that the area harvested is often quite considerably less than that sown.

(b) *Development of Unitary Yields.*

Before the war yields per unit of area showed considerable increase, continuing till 1915, although with extraordinarily wide fluctuations (see Graph III a). The large rise in this yield in the years 1912-1915, which occurred in spite of

(1) According to data supplied by Prof. Th. BRINKMANN, Bonn.

the expansion of the areas under wheat, is probably to be ascribed almost entirely to the exceptionally good weather conditions. A decline of 45 per cent. followed, in spite of a shrinkage in wheat growing, and this was again followed, under the influence of crop rotation, by a marked rise up to 1918. The subsequent extension of wheat cultivation took place at the expense of yields per unit, which fell extraordinarily low in 1923, but show a tendency to rise with the gradual shrinking of the cultivation. From 1924 onwards with the expansion of cultivation there was a decrease in yields, although with considerable fluctuations; both these tendencies were reversed from 1929, but in 1932 owing to very unfavourable weather conditions there was again a decided decline in yields.

In the United States there is moreover always a certain balance between the winter and the spring wheats, whereby a deficiency of the one crop is compensated for as a rule by a high yield from the other (see under Section 7).

(c) *Development of the Aggregate Wheat Production.*

Corresponding to the fluctuations of the areas cultivated or harvested and to the very high fluctuations of the yield per hectare there was also considerable variation in the quantities harvested in the pre-war years up to 1911, but the average remained at about 17.5 million tons. Then in consequence of the increase in areas together with the rising yields per unit there was a considerable increase in quantities harvested up to 1915. In 1916 in consequence of the limitation of wheat areas and disastrously low yields there was an equally abrupt fall in production. The yield per unit of 1916 was the lowest since 1900. A further decrease in areas cultivated was accompanied by rising yields with the result that the total quantity harvested for 1917 was equivalent to that for 1916. Towards the end of the war there was a large expansion of the area under wheat, reaching a record extension in 1919. The quantity harvested however increased much less markedly as with the extension the yields per unit of area declined. When in consequence of the agricultural crisis the areas under wheat had to be again much diminished, the yields per unit did not, it is true, increase in any corresponding measure, but in spite of this the total quantity harvested remained about 30 per cent. larger than in pre-war times. Just when areas had nearly gone back to the pre-war position, a decided rise in the yields per unit was noticeable. From then onwards, with the exception of 1925, when crop failure was experienced, areas cultivated or rather harvested and yields per unit moved almost regularly in opposite directions, so that the fluctuations of the aggregate quantities obtained were relatively small. Taking the average of the years 1920-1931 the wheat production of the United States has been maintained almost uniformly, with the exception of 1929, at a level of about 23 million tons. In 1932 with its unfavourable weather conditions, there was a deficiency of 15 per cent. as compared with the average and of 20 per cent. as compared with 1931.

3. — Wheat Areas and Wheat Production *per capita*.

At the turn of the century the American population was rapidly increasing in advance of the areas under cultivation, so that the agricultural area available per head of population was greatly reduced. There was a relatively still greater reduction in the area under wheat available per head owing to the transition to mixed farming, the decline in fact between 1900 and 1912 being from 0.26 hectares to 0.19 hectares (0.64 to 0.47 acres) or 27 per cent. This fall was followed by a rise, lasting till 1915, to 0.25 hectares or 0.62 acres, after which there was a further decline to 0.18 hectares or 0.45 acres. The reversion towards the end of the war to the wheat monoculture which had characterised the settlement period resulted in an increase up to 1919 of the *per capita* cultivable area to 0.29 hectares or 0.71 acres (*i. e.* 12 per cent. more than in 1901 and 61 per cent more than in 1917). Under the influence of the agricultural crisis there was however an equally rapid decline once more to 0.18 hectares, or 0.45 acres. A small extension only followed in 1926 and 1927 up to 0.20 hectares or 0.50 acres, and subsequently the tendency to decline continued. The measures taken in the United States for solving the problem of the surplus stocks are likely to result in further limiting of the area under wheat.

The wheat production per head of population declined from 1900 to 1904 more rapidly than the *per capita* cultivable area, *viz.*, from 2.66 quintals (9.77 bushels) to 1.82 quintals (6.68 bushels) or by 32 per cent. In the years 1905 and 1906 there was again a rise to 2.33 quintals (8.5 bushels), followed by a fall to 1.8 quintals (6.61 bushels). This decline in the *per capita* production continued but more slowly than the reduction in the *per capita* cultivable area. From 1911 to 1915 in consequence of the extension in cultivation a considerable rise took place in the *per capita* production, but in 1916 there was a severe set-back and in 1917 it fell to a very low point. The extraordinary expansion of the area under cultivation again occasioned a rise in the *per capita* production up to 1919, but it did not however reach the level either of 1915 or of 1901. There followed a strongly marked regressive movement, corresponding to the course of the pre-war movement and reducing the *per capita* production to the pre-war quota. The movement as a whole is shown in a following table for the five year periods since 1903. Whereas the rise in *per capita* production in the years 1913-15 and 1918-23 is clearly to be attributed to expansion of areas, that from 1924 is due to increase in yields per unit of area.

American agriculture however produces far more wheat than can be disposed of in the country itself, and consequently is dependent to a great extent on overseas marketing. This position is the more serious as on the one hand the American population is now increasing only slowly and on the other hand wheat growing becomes more intensive, while the countries which previously were the principal importers are engaged in raising higher barriers against importation.

4. — The Net Wheat Export.

The net export of wheat from the United States shows, in correspondence with the result of the home crops, very marked fluctuations. It had passed its highest point at the turn of the century and up to 1904 declined considerably. In the following years in consequence of large crops there was an advance in the wheat export which in 1907 again reached the figure for 1903. An equally marked decline occurred in the following years, so that in 1910 a very low figure was reached. Under the influence of the great increase in wheat production which began at this time there was again a large additional export which in 1915 amounted to 17 times the export figure of 1903 or 1907 and about 5 times that of 1904 or 1910. With the fall in wheat production already mentioned as due to the effects of the war there was up to 1917 again a decline in the export figures, although the diminution is not in any way so great as might have been expected from the decrease in wheat production, the fact being that the large stocks from the years 1914-15 were pressing on the market. With the renewed expansion of wheat production in the years 1918-19 an advance in the export was again noticeable, and in 1921 a record height of nearly 9 million tons was reached, nearly three times the average export figure of the last pre-war decade and six times the export of the years 1907-1911. Owing however to the onset of the agricultural crisis and of the protection measures taken by the importing countries the wheat export then experienced a very marked decline, although with fluctuations, so that in the years 1928 to 1932 it had fallen almost to the average pre-war export, i. e., by about 60 per cent.

The following table makes the development clear:

Wheat Production and Wheat Export on a Comparative Basis.

Period	Wheat production	Wheat export	Proportion of export to production %
1903-07	100	100	18
1908-12	103	85	15
1913-17	122	123	25
1918-22	135	218	28
1923-27	124	154	22
1928-31	132	109	14

These figures well illustrate the efforts made by the Americans to place increasingly larger quantities of their wheat on the world market, and so balance the lower returns due to lower prices by means of a larger export. The figures for 1928-31 show the disastrous effect on the American wheat export of the efforts made by the European importing countries for self-sufficiency.

5 — The *per capita* Wheat Export.

The wheat export per head of population shows the same fluctuations as the total export, although to a considerably less marked extent. The *per capita* wheat export up to 1922 showed continuous increase, but then began to decline and in 1928-30 again reached the lowest point of the pre-war position. The following table shows the movement:

Course of the per capita wheat production, wheat export and wheat consumption on a comparative basis.

Period	Production	Wheat Export <i>per capita</i>	Consumption
1903-07	100	100	100
1908-12	94	78	97
1913-17	101	146	92
1918-22	107	170	93
1923-27	91	114	85
1928-30	90	78	93
1931-32	84	66	88

6. — The *per capita* Wheat Consumption.

The *per capita* wheat consumption up to 1907 showed a tendency to decline, but afterwards slowly rose up to 1915. In 1916 there was a sharper decline followed up to 1918 by nearly as sharp a rise. Then the consumption of wheat began to decline slowly till 1925, with interruption only in 1922, the decline amounting to 15 per cent. as compared with the five year period 1903-1907. In 1926, when the protection measures began in the importing countries and marketing became in consequence more difficult, there was once more an apparent increase in home consumption of wheat, but here the case is not one of actual increase in consumption as this quantity includes also the large warehoused stocks of wheat, which do not come on the world market and still await disposal.

*Wheat Stocks in United States of America
on 1 August of the respective years.*

Year Aug. 1st	In 1000 quintals
1925	31,800
1926	27,200
1927	32,400
1928	34,600
1929	66,700
1930	80,600
1931	90,900
1932	103,100

In the prevailing conditions it is probable that this tendency has not yet reached its end; and will not, unless the wheat production of America is considerably reduced, or a poor harvest brings about a natural diminution of production and thereupon the stocks are drawn on for meeting the demand. The development of consumption from 1903 to 1930 in five year periods has been shown. As compared with the decade 1903 to 1913 the *per capita* wheat consumption in the decade 1920-30 declined by 12 per cent.

7. — Outlook.

It is impossible to foretell the direction in which the conditions on the American wheat market will in future develop, since on the supply side extension of cultivation, increase in yields, crop returns and export facilities represent the factors, while on the demand side these are to be found in the rise, stationary position or fall of the population figures, as well as in the *per capita* consumption of wheat. The degree to which any of these would take effect and the direction of any such effect are alike beyond calculation.

Under pressure of the low world prices a further limitation of the areas under wheat in America is very probable. In addition a natural reduction might occur in unfavourable years, in particular from want of rain in the case of the spring wheat cultivation which has been pushed on in the western arid zones. On the other hand there is a not inconsiderable rise in the areas under winter wheat, so that the deficiency of the one crop might be balanced by a higher yield from the other.

A larger consumption of wheat in consequence of the growth of the population is certainly to be expected, but the rate of such increase in consumption is slower every year, and any additional increase in population depends essentially on immigration.

It is not easy either to obtain reliable figures on the consumption of wheat *per capita* of the population. It is estimated that it has fallen as compared with the pre-war time by about 15 per cent. It is not improbable that this is increasing owing to the unfavourable economic conditions; but it is difficult to form a judgment in this respect.

The estimates of the Department of Agriculture for the United States wheat harvest of 1932 were:

on 1 July 1932	20.06 million tons
on 1 August 1932	19.68 million tons

and for wheat stocks carried over from 1931 over 10 million tons. The average internal demand of the States for wheat was reckoned at about 18 million tons, so that about 12 million tons were left for export. Under the pressure of these huge stocks the quotations for wheat have gone down to a point not before reached. The position of the American farmer is practically desperate, especially in view of the general economic depression.

II. — CANADA.

1. — Population Development.

Canada is definitely a settler's country. The growth of its population has accordingly been to a great extent dependent on immigration.

Number of Immigrant Arrivals in Canada (1).

Decade or year	Number of immigrants	Year	Number of immigrants
1871-1880	—	1919	57,702
1881-1890	886,300	1920	117,336
1891-1900	321,200	1921	148,477
1901-1910	1,453,500	1922	89,999
1911	311,084	1923	72,887
1912	351,237	1924	148,550
1913	402,423	1925	111,362
1914	384,878	1926	96,064
1915	144,789	1927	143,991
1916	48,537	1928	151,597
1917	75,374	1929	167,722
1918	79,074	1930	163,288

A comparison of the above table with the population development gives a clear indication of the influence of immigration. From 1900 to 1931 Canada has doubled her population, the total increase being almost entirely accounted for by the stream of immigrants that poured into the Western Provinces. The growth of the population is characterised by an extraordinary irregularity; a marked slowing down of the increase is however noticeable, which may all the sooner bring about a stationary condition of population from the fact that immigration has considerably declined. Urbanisation of the population has led to a marked change in composition and takes further effect in a declining birth rate. Although it is not impossible that settlement of the country may still proceed and there are in fact still large areas of land not yet taken up and suitable for wheat growing, economic conditions and the course of development of population in the emigration countries make any settlement, at all comparable to what has hitherto gone on, very far from probable.

(1) Canada Yearbook.

2. — The Development of Wheat Production.

(a) Development of Areas under Wheat Cultivation.

The area under wheat in Canada has increased between the years 1901 and 1921 with a certain regularity from 1.6 to 9.4 million hectares (3.95 to 23.23 million acres), *i. e.*, has been sextupled in the period. The immense extension of cultivation coincides with the opening up and settlement of the Prairie Provinces. The further extension of the wheat area has in the meantime reached its natural and economic limits; the westwards movement of the Canadian farmer has come to a standstill. During the years 1921 to 1928 there was no further expansion of wheat growing. From 1928, however, extension began anew, mainly on land which had already been taken up by earlier settlers. This increase of wheat growing was promoted by mechanisation, as shown by the following table:

*Sale of Agricultural Machinery
in the three Western Provinces of Canada (1).*

Year	Tractors	Threshers	Combines
1924.	2,112	—	—
1925	4,053	—	—
1926.	6,513	—	176
1927.	10,026	—	598
1928.	17,143	6,247	3,657
1929.	14,557	2,095	3,500
1930.	8,611	2,034	1,614

Distribution of Machine Sales in the Provinces 1930.

Manitoba	1,541	379	134
Saskatchewan	4,350	829	939
Alberta	2,720	826	541

It is however unlikely that this extension will be on any large scale, since with the low prices the high costs of production make wheat growing unremunerative. On the whole the difficulties are in any case so great that a rapid expansion of wheat growing cannot be anticipated.

(1) Board of Trade Journal, 12 Feb. 1931

Wheat Cultivation in Canada.

Years	Area under wheat 1000 ha.	Yield per ha quintals	Production 1000 quintals
Average 1909-13	4,020	13.3	53,600
1923	8,860	14.6	129,100
1924	8,930	8.0	71,300
1925	8,410	12.8	107,600
1926	9,270	12.0	110,800
1927	9,090	14.4	130,500
1928	9,760	15.8	154,200
1929	10,220	8.1	82,900
1930	10,080	11.4	114,500
1931	10,600	8.3	87,500
1932	11,100	10.6	116,600

(b) Development of Unitary Yields.

While the expansion of wheat growing through extension of area was going on, the unitary yields between the years 1900 and 1910 showed a marked decline, although with considerable fluctuations. This tendency was however definitely checked by the introduction of the new Marquis wheats and the summer fallow of 1910. From that year there was for the time being a steady rise in yields per acre, and in 1915 a record yield was obtained. From 1915 with the further expansion of wheat areas the unitary yield again declined rapidly to a minimum of 6.8 quintals per hectare (5 bushels per acre) only in 1919. Although in 1921 the expansion came to an end and mixed farming was being substituted for wheat-growing, the post-war average yields per acre did not reach the pre-war level. The peak yields of the pre-war period were reached only in the years 1923, 1927 and 1928, in the other years the yields fell far below the lowest pre-war yields. In the years 1929 and 1931 large areas were ruined by unfavourable weather and on the remaining areas the yields were very low. Although a series of good seasons had been favourable to the westward extension of wheat growing, a succession of several unfavourable seasons led to the cultivation being abandoned over wide areas.

(c) Development of Aggregate Wheat Production.

At the beginning of the century there was at first a slow but increasingly marked rise in the total annual wheat production, but following on a record production in 1915 the rising tendency abruptly ceased. After the war in consequence of unfavourable weather conditions the production fluctuated between wide limits and for the period 1919 to 1932 the average was 10 million tons only. Speaking generally there has been a slight diminution in wheat production since 1923.

3. — Wheat Area and Wheat Production *per capita*.

The population increase has not been able to keep pace with the immense expansion of the wheat growing areas and with the increase in production.

Whereas the population increase from 1900 to 1921 was only about 69 per cent., the *per capita* quota of the wheat areas rose by nearly 2.6 times. After 1921 the increase in area rose only in proportion with the population, so that the *per capita* quota of area remained constant. This tendency may possibly be maintained in the future, unless the wheat growing areas undergo reduction owing to transition to other crops or to mixed farming.

The per capita quota of wheat production was characterised by the same movement, although with marked fluctuations. Since in the post-war period the unitary yields declined with the exception of three specially favourable years, wheat production per head of population also showed a slight decline. This however makes no difference to the fact that in the eleven year pre-war period (1903 to 1913) the wheat production per head of the population was only 5 84 quintals (about 23 bushels) while on the other hand in the eleven year post-war period (1920-31) it was 11.23 quintals (nearly 45 bushels) and has thus nearly doubled. In the future *per capita* wheat production may show a declining tendency for the reasons mentioned, unless the expected rise in unitary yields resulting from a certain intensification may prevent this tendency from becoming too pronounced.

4. — The Net Wheat Export.

The wheat export of Canada became multiplied nearly twelve times between 1903 and 1928; Canada has become one of the leading wheat exporting countries of the world. At the same time the rate of increase of wheat exportable surpluses which are placed on the world market by Canada is more rapid than that of Canadian production. The rise in wheat production in the post war decade 1921-31 was 2.8 times as great as that of the pre-war decade 1903-13, while the proportion of the wheat export to the production rose for these periods 43 per cent. in the earlier and 68 per cent. in the later. The export surplus fluctuates of course as the result of the greatly fluctuating crop returns, the consequence of the variable continental climate. In spite of the serious market situation on the world market Canada has succeeded in maintaining up to 1931 the high export quota even in years when the crops were poor and the export quantities accordingly low. Since 1929 the export has been falling slowly but continuously.

5. — The *per capita* Wheat Export.

As has been seen the *per capita* wheat production doubled in the post-war decade 1921-31 as compared with the pre-war decade 1903-13. Since the population of Canada cannot itself consume these immense quantities of wheat, they

must be placed upon the world market or warehoused. Although there are large warehousing facilities in Canada, the alternative course has been mainly taken and the wheat surpluses thrown upon the world market. While the *per capita* export surpluses, for the reasons already given, fluctuate considerably, the wheat export per head in the decade 1903-13 was trebled during the decade 1921-31.

6. — The *per capita* Wheat Consumption.

No clear idea of the actual wheat consumption can be gained from the quantities available for consumption as established by the statistics, since in the first place there is a discrepancy between the crop year and the export year and secondly in consequence of the great variations in the crop returns larger stocks are being held. In the pre-war decade 1903-13 the *per capita* wheat quota amounted on an average to 3.33 quintals (12.26 bushels), in the post war decade 1921-31, taking into account the large quantities in store, to 3.67 quintals (13.48 bushels). The actual consumption of wheat in Canada per head of population has dropped by about 10 per cent. as compared with the pre-war years, so that a *per capita* quota of about 3.0 quintals (11.02 bushels) only may be reckoned.

The apparently high internal consumption of 1932 would seem to be due to the great accumulation of invisible wheat stocks which cannot be placed on the world market.

7. — Outlook.

If the conditions of Canadian wheat growing are considered, a very gloomy picture emerges. The extraordinary advance in cultivation in conjunction with the erection of barriers by the former consuming countries has led to a disastrous crisis in marketing, whereby the world market is depressed by the huge stocks in store. In consequence of the relatively large harvests of the years 1925, 1926 and 1927 as well as of the bumper record crop of 1928, there was so heavy an increase in wheat stocks in Canada that the wheat pool collapsed under the strain, the financial loss of this body from the harvest of 1928-29 alone being estimated at 25 million dollars.

Wheat Stocks in Canada.

Year Aug. 1st.	In 1 000 quintals
1925	8,200
1926	10,900
1927	14,400
1928	25,000
1929	34,600
1930	34,600
1931	38,000
1932	37,000

Although in the last few years the stocks have not been allowed to increase to any considerable extent, with an internal consumption of 3 million tons nearly the entire harvest of the 1932 season remains free for export. The present world crop prospects and the estimates of the probable requirements of the consuming countries point to still lower wheat prices.

III. — ARGENTINA.

I. — Population Development.

Argentina is definitely a settlers' country. The population has not increased to the extent anticipated, and from 1853 to 1903 the advance was from about one million to five millions only. Subsequently the population increased by immigration somewhat more rapidly, and in 1914 reached nearly 7.9 millions. Immigration was brought to a standstill by the war, and a nearly stationary position of the population ensued, the emigration even exceeding the immigration in the years 1914 to 1918.

Net Immigration into Argentina (1).

Decade or year	Number of immigrants	Year	Number of immigrants
1871-1880	275,900	1920	35,000
1881-1890	854,900	1921	59,000
1891-1900	396,600	1922	88,000
1901-1910	1,177,400	1923	156,000
1911	109,600	1924	116,000
1912	206,100	1925	75,000
1913	145,400	1926	90,000
1914	61,000	1927	104,148
1915	65,300	1928	75,239
1916	46,700	1929	66,111
1917	32,300	1930	64,272
1918	9,200	1931	2,656
1919	2,200	—	—

There was a gradual resumption of immigration from 1919, but in 1923 and 1924 the numbers of immigrants were so large as to make it impossible to keep

(1) Up to 1920: FRANNENSCHEIDT, Dr. E., *Die argentinische Landwirtschaft*.

From 1921 to 1926: SERING, Geh. Rat. Prof. Dr. M., *Internationale Preisbewegung und Lage der Landwirtschaft in den ausser-europäischen Ländern*. Berlin, 1929. — From 1927 to 1931. « The South American Handbook » 1933.

up systematic assignment of land and regulation of conditions of tenure (1). In the following years there was some falling off, but from 1927 to 1931 there was again a rise in the immigration figures. From 1922 the population of Argentina has shown on the whole a tendency to increase, but there is a lag as compared with the pre-war period. With the pressure of the world economic crisis and in particular of the agricultural depression there is no question of a large increase in population by mass colonisation.

Under present conditions indeed a further limitation of immigration might well be decided on.

2. — The Development of Wheat Production.

(a) *The Development of Areas under Wheat Cultivation* (1).

In consequence of the great advance at the turn of the century (2) of wheat prices beyond prices of slaughter cattle, there was from 1901 to 1905 an extraordinarily marked expansion of the wheat areas in Argentina amounting to about 75 per cent. This period was followed by one in which wheat prices and slaughter cattle prices rose together, but the latter more markedly than the former, so that wheat prices lost their power to stimulate expansion. During this period up to 1912 there was only a slow, although fairly steady, expansion of wheat cultivation. In the years 1912-1917 the price curves began to intersect, and no further extension of the areas under wheat cultivation occurred. From 1917 to 1921 the livestock prices led, and after 1917 the wheat areas were once more greatly reduced, and by 1921 the extent of the cultivation was the same as in 1905. Since wheat prices were less affected than prices of livestock products by the pressure of post-war conditions, there was from 1922 a further extension of wheat cultivation which in 1928 reached a record height. Under pressure of the world agricultural crisis, there has been from 1928 once more a marked decline.

The development of wheat cultivation in Argentina did not proceed with the rapidity that characterised the process in the other settlement countries (Canada and Australia). The difference is due to the fact that in Argentina besides the competition between arable cultivation and live stock farming, pasture and fodder crop production, there is also some rivalry between wheat, maize and linseed. There has been a considerable expansion of maize and linseed, and wheat cultivation has been proportionately decreased. Before the war linseed prices had on the whole the pull over wheat and maize. Under war conditions wheat had the advantage, but with the crisis of 1920 the price decline was much sharper with wheat and linseed than with maize. The downwards trend of prices that set in after 1925 at first affected linseed and maize

(1) BRINKMANN Prof. Dr. TH., *Ackerbau und Kolonisation in argentinischen Chaco*. Ber. u. Landw., 12 Bd., S. 499.

(2) See BRINKMANN, Dr. TH., *Entwicklungslinien und Entwicklungsmöglichkeiten der landw. Erzeugung Argentiniens*. Ber. u. Landw., 13 Bd. S. 569.

more than wheat, but in the later years on the contrary wheat was greatly affected in sympathy, and at the present time exhibits the most unfavourable price situation.

Areas sown and areas harvested are by no means identical in Argentina, as nearly every year the crop over a more or less large extent of the areas under wheat (even as much as 50 per cent.) is completely destroyed by unfavourable weather, insect pests or plant diseases, so that the areas harvested are frequently quite considerably smaller than the areas sown.

Wheat cultivation in Argentina.

Years	Area under Wheat 1000 ha	Yield per ha quintals	Production 1000 quintals
Average 1909-13	6,020	6.6	40,000
1923	6,900	9.8	67,400
1924	6,470	8.0	52,000
1925	7,130	7.3	52,000
1926	7,670	8.2	62,600
1927	8,170	9.4	76,800
1928	9,080	10.5	95,000
1929	6,440	6.9	44,200
1930	7,900	8.0	63,200
1931	6,490	9.2	59,800
1932	7,200	8.9	64,100

(b) Development of Unitary Yields.

The unitary yields of the areas under wheat cultivation in Argentina are low not merely in comparison with those of Western Europe, but also in comparison with Canada. In the pre-war period the average yield was much reduced by the rapid extension of the area under cultivation. With the subsequent shrinkage of area, the yield increased from 1917 to 1923, and again fell with the renewed expansion. Improved methods of cultivation, however, seem to have diminished the tendency for the yields to decline with an extension of area.

(c) Development of Aggregate Wheat Production.

From the above particulars the fact emerges that the total increase in the wheat production of Argentina, with the exception of the years 1927 and 1928, has been comparatively small when viewed in proportion to the extension of cultivation. If the production increased very considerably in the first years of the expansion (on virgin soil) up to 1907, it showed a considerable decrease from

1907 to 1916 In 1917, in spite of shrinkage of cultivation, the wheat production again reached the peak figures of the pre-war time as a consequence of improved unitary yields, and this level has been almost uniformly maintained during the whole of the post-war period, the exception being the years 1927 and 1928 with their record harvests

3. — Wheat Area and Wheat Production *per capita.*

The less rapid progress of wheat-growing in Argentina than in the other settlement countries has already been noted and accounted for. It is however surprising, that *per capita* area under wheat has steadily declined in Argentina since 1905 with but few interruptions. This tendency may continue, unless some essential change in favour of wheat takes place on the world market situation for wheat and meat.

The *per capita* wheat production after rising very considerably from 1901 to 1907 dropped again markedly in the decade 1907 to 1916, and in 1916 was below the *per capita* production of 1901. From 1917 to 1932 it remained on the other hand fairly constant, the average being about 6 quintals per head. Taken as a whole the *per capita* wheat production has declined in the period 1917 to 1932 by about 20 kg. only, or 3.3 per cent., as compared with the period 1901 to 1916.

4. — The Net Wheat Export.

In the decade 1907 to 1916 the net Argentine wheat export tended to decline, although less markedly than the wheat production. After 1916 with the increase in production the export also increased although not so noticeably. The proportion of the export to the production has fallen somewhat in the post-war period as compared with the pre-war years. The fluctuations in exports show little regularity. The variations in the yields and consequently in the quantities exported depend on the incalculable effects of weather conditions. The Argentine wheat export speaking generally would appear to be at a turning point in respect to rate of increase; a declining tendency is not unlikely to appear, and in any case further increase is not probable.

5. — The *per capita* Wheat Export.

The Argentine *per capita* wheat export has on the whole declined almost parallel to the production per head; while the *per capita* production fell by 7.6 per cent. in the period 1917-1932 as compared with 1902-1917, the *per capita* export dropped by 7.8 per cent. If the first decade of the century is disregarded, the *per capita* export has remained nearly constant and varies according to the crop results round about 3.75 quintals per head.

6 — *Per capita* Wheat Consumption.

Since the wheat production per head has dropped somewhat less than the export per head has done, the average consumption quota per head has remained almost the same. It is however by no means to be concluded that the *per capita* wheat consumption has remained the same or even has risen; for very large quantities of wheat, which could not be placed upon the world market, had to be placed in store (but see later), so that it is even possible to speak of a decline in consumption, especially since in consequence of the diminution in cultivation larger quantities of seed wheat are left over. In any case everything goes to show that the Argentine farmer has endeavoured to balance the fall in wheat prices by increasing the quantities of wheat sold.

7. — Outlook.

Post-war developments have shifted the centre of gravity as regards the export trade of Argentina more than ever to the side of arable cultivation. It may however be taken as certain that this shift will not long continue; there are many indications that within the next few years a change will take place.

Wheat-growing has been affected by the price crisis more seriously than any other branch of agriculture and the shrinkage of cultivation which began as early as 1928 has led to a diminished production and to a great drain on the wheat stocks in Argentina.

Development of Wheat Stocks in Argentina.

Year Aug. 1st	In 1,000 quintals
1925	15,800
1926	18,200
1927	18,800
1928	25,900
1929	35,400
1930	17,700
1931	21,800
1932	16,300

It would be in no way surprising if in the next few years there were further shrinkage in the wheat areas. As over 60 per cent. of the wheat production enters the export trade, the wheat export is bound to be considerably affected by any decline in production.

IV. — AUSTRALIA.

1. — Population Development.

The development of population in Australia exhibits the typical characteristics of all definitely colonial countries. The growth of the population is closely connected with the immigration and shows marked fluctuations in accordance with the course of immigration

Net Immigration into Australia (1).

1871-1880	191,804	1920	47,117
1881-1890	382,741	1921	15,654
1891-1900	24,879	1922	38,023
1901-1910	40,485	1923	37,540
1911	69,300	1924	43,749
1912	83,791	1925	37,357
1913	54,775	1926	42,220
1914 —	17,370	1927	48,924
1915 —	91,053	1928	27,232
1916 —	133,892	1929	8,963
1917 —	21,950	1930 —	11,408
1918	19,078	1931 —	12,061
1919 (2)	160,180		

(1) Official Yearbook of the Commonwealth of Australia.

(2) Returning troops.

Immigration into Australia has however always been on a small scale comparatively, and even the Imperial Migration and Settlement Act of 1922 did little to foster it. Immigrants have from the first tended to crowd into the towns and have not gone on the land ; and in this way it has come about that nearly half the population of Australia is concentrated in the 5 largest towns. During the war the population of Australia was stationary, largely as the result of the sending of Australian troops to the scene of military operations, but with the return of the troops in 1919 together with favourable market conditions for wheat there was for a time a continuous increase. Since the onset of the world crisis in 1928 the natural increase in the population has again been checked and the immigration has again almost ceased. As there seems little prospect of favourable price conditions for agricultural products in the near future, it is unlikely that any extensive colonisation movement may be anticipated.

2. -- The Development of Wheat Production.

(a) *Development of Areas under Wheat Cultivation*

Even more than in Argentina the physical conditions of Australia with its immense arid tracts mark it out for the pastoral industries, and especially for sheep-raising. As wheat-growing has been, in some sense, carried on as a subsidiary industry only, its extension is to an extraordinary degree determined by the relations between wheat and wool prices. In the period 1900 to 1903 wheat prices were much in advance of wool prices and in consequence there was a considerable extension of wheat growing up to 1904. At the beginning of 1903 the price curves of the two products approached, and at the end of the year they intersected, so that wool prices now took the lead; wheat growing accordingly received a check and up to 1908 there was considerable reduction of areas. As early as 1906 however this tendency was modified and in 1907 the two price curves again coincided, and from that time up to 1915 their rise was nearly parallel. Wheat growing profited most by this rise in prices, as the return per acre is much higher than that of wool production. In consequence wheat growing was extended from 1909 to 1915, the resulting area being nearly double that of 1908. In 1914 however wool prices began to go ahead of wheat prices and up to 1918 were greatly in advance, while wheat prices declined from 1917. As a result the areas under wheat were considerably reduced between 1915 and 1919. The fall in wool prices in the years 1919 to 1921 restored the former price relation between wool and wheat, and wheat growing was again expanded up to 1921. This expansion received a temporary check only from the higher wool prices ruling from 1922 to 1925. Subsequently the advantage in price began to be with wheat, and from 1926 there thus came about an immense expansion in the wheat growing area, so that in 1930 this was more than 3.5 times the area under wheat at the beginning of the century. As is shown by the wheat acreage figures for the season 1931-32, this phase of development appears to be over, partly in consequence of the change in the price ratios, wheat prices remaining low and wool prices showing some slight improvement. Probably some reduction in the wheat areas of Australia is to be anticipated.

Wheat Cultivation in Australia.

Years	Area under wheat 1000 ha	Yield per ha quintals	Production 1000 quintals
Average 1909-13	3,080	8.1	24,600
1923	3,860	8.8	34,000
1924	4,380	10.2	44,800
1925	4,130	7.6	31,200
1926	4,730	9.3	43,800
1927	4,970	6.5	32,200
1928	6,010	7.2	43,500
1929	6,060	5.7	34,500
1930	7,350	7.9	58,100
1931	5,960	8.7	51,600
1932	6,330	8.6	54,500

(b) *Development of Unitary Yields*

Owing to the limitation in the pre-war years of wheat growing to the regions naturally best suited for the crop, *viz.* the Eastern and South-Eastern States, and to the adoption of sound technique in cultivation, the Australian yields per acre were satisfactory and remarkably uniform; it was possible to avoid decline in yields from extension of area under cultivation. With the rapid expansion of the cultivation after the war, the yields declined and showed greater fluctuations.

(c) *Development of Aggregate Wheat Production.*

In the pre-war period the Australian wheat production showed a slow but continuous increase parallel to that in the areas under cultivation. A crop failure in 1914 was followed by a record crop in 1915. From 1915 to 1919 there was a serious decline in wheat production. From 1920 there was again a marked advance. Owing to especially favourable weather conditions the yields for 1930-31 and 1931-32 have been relatively high, so that the harvests have been the largest ever produced in Australia.

3. — Wheat Areas and Wheat Production *per capita*.

The *per capita* area under wheat in Australia increased up to 1915 in advance of the population. In war time it dropped back to a minimum, and then again rose considerably, so that in 1930 a maximum was reached. The disastrous position on the world wheat market is forcing Australia in spite of all efforts to a limitation of the areas under wheat cultivation, as may be seen from the figures for the 1931-32 season.

Wheat production per head in pre-war times showed a rise parallel to the increase in population. In post-war times the *per capita* production, although with somewhat wide fluctuations, has remained constant.

4. — The Net Wheat Export.

The net wheat export from Australia shows large fluctuations corresponding to the crop return, but in the pre-war years advanced nearly parallel with the advance in production and on the average amounted to 50 per cent. of the production. While in the first post-war years the export was about 70 to 75 per cent. of the production, it fell again, and in 1929-30 reached only about 50 per cent., and large stocks have been formed.

5. — The *per capita* Wheat Consumption.

It is the more difficult to make a statistical estimate of the *per capita* consumption of wheat, since although the *per capita* production and export are known, only the visible stocks are recorded statistically. In the post-war period in particular large stocks have accumulated, so that the *per capita* quota of wheat seems to be 6 per cent. higher than the pre-war. In reality it has probably declined by some 6 to 10 per cent.

6. — Outlook.

During the war Australia was looked upon as an Eldorado. Although sharing in the common suffering caused by the war, at the same time there was prosperity in the fifth continent so long as the absorption capacity of the European market was such that every pound of wool, every ton of hides, every bushel of wheat was in request. For the first few years after the war the favourable market conditions for raw materials still continued. Then came the lean years. There had been in all directions an immense over-stimulation of production and this led to the financial breakdown of Australia. The efforts of the farmers, to escape from a critical position, led to the extension of the area under wheat, just when in other countries it was being reduced, in the hope of securing a profit out of the supposed imminent shortage.

It is therefore not surprising that the wheat stocks of Australia went on accumulating even after 1929 in a disastrous manner, while stocks in Canada and Argentina could be largely reduced. Although Australia has succeeded in exporting large quantities of wheat to the Far East, the large Australian stocks still overshadow the world market and prevent any improvement of the wheat market situation in the near future. Australia will be forced by prevailing conditions once more to restrict areas under wheat cultivation.

Wheat Stocks in Australia.

Year August 1st	in 1000 quintals
1925	6,500
1926	4,600
1927	6,300
1928	7,300
1929	7,300
1930	10,100
1931	12,500
1932	10,900

V. — THE WORLD.

Although great interest and importance attaches to the investigations in the separate countries, their world significance and effect can only be judged if the results of the different countries are taken together.

1. — Population Development.

In the course of the nineteenth century the population of the world increased to an extent previously unparalleled. Whereas in 1800 the total population of the world was not quite 600 millions, in 1870 it was about 1400 millions, and in 1930 something over 2000 millions (1). In the course of the

(1) See: BURGDÖRFER, FRIEDR. *Volk ohne Jugend*. Berlin 1932.

last hundred years the world population has thus doubled and as compared with 1800 more than trebled. This immense growth in population, only made practically possible by the great advances in technique and in hygiene, filled timorous minds with alarm in respect of the struggle for the margin of subsistence involved. To-day the spectre of overpopulation has vanished. Signs of "fatigue" appeared at the beginning of the 20th century in the population increase of the world, and the relative decline was clearly visible from 1920.

Much more important than the question of overpopulation is the problem of the decline of the birthrate, regarded from the international standpoint alike in the present and in the near future. Here also exaggeration must be avoided; just as an overpopulation of the globe is unlikely, so there is no need to fear an actual depopulation as a result of this decline. The effect is likely rather to take the form not merely of changes in the structure of the populations affected and in their relative strength, but also of readjustments in the food supply of the world's population, such as may be of significance in world history. It is agriculture that must in the first instance bear the consequences of any decline in the population.

An element of uncertainty is imported into this enquiry by the U. S. S. R.; the Russian statistics at the present time do not appear to be reliable, and at the same time no separation on a comparable basis of statistics is made of Russian territory into European and Asiatic Russia. For this reason the development of world population is first investigated apart from Russia, and then separately shown including Russia.

The population development of Russia in no way annuls the general population development of the world but rather intensifies it. The natural increase of population of the U. S. S. R. after the revolution was so great, that it nearly compensated for the immense losses of human life caused by the world war, the civil war, epidemics and famine. From 1924 to 1930 the increase amounted to about 20 million, an astonishingly large figure. The cause of this increase, however, is not a corresponding excess of births, but a diminished mortality. In the three years from 1911 to 1913 the birth rate was 46.8 per 1000, and in the three years 1926-28 it was only 40.0, while the death rate fell from 30.5 to 17.4 over the same period (1).

2. — The Development of the Wheat Production of the World.

(a) *Development of Areas under Wheat Cultivation.*

For five or six years in the pre-war period a development of the world wheat areas apart from U. S. S. R. went on somewhat irregularly, and reached a maximum in 1915. If the causes of this development are examined, the by no means surprising result appears, that the "focus of unrest," the impell-

(1) FAERMANN, MICHAEL, *Piatletka, Russia's 5 Year Plan*. Translation by von R. Hillerding. Berlin 1931.

ing forces, lay in the countries in course of colonisation, Argentina and Australia. As soon as price relations in those countries as between meat or wool and wheat moved in favour of wheat, wheat growing, as already explained, underwent a great expansion, which was followed when conditions were reversed by stationary position or limitation of areas. The production of these countries readily reacts on price pressure because the restrictions imposed by natural and social conditions on production are very slight, and consequently the freedom in choice of crop production is very great. With the exception of Europe, in which the areas under wheat production remained almost constant in the pre-war time, there has been a fairly uniform increase in the wheat areas. In the increase that went on from 1911 to 1915 it was only Canada and the United States that largely participated. In the decrease of area from 1915 to 1917 only the United States and Australia, together with Europe, were concerned, while wheat-growing remained stationary in Argentina and in Canada it even increased. The expansion of wheat growing from 1918 to 1923 occurred almost exclusively in the United States and to a small extent in Canada. The extraordinarily large extension from 1924 to 1931 was almost exclusively effected by Argentina and Australia alternately.

The pre-war development of the wheat areas of the world may be taken as the same, whether Russia be included or not, since similar conditions prevailed for Russia as for Europe. As there was a great expansion of wheat growing in Russia even before the war, the general tendency towards increase at that time is reinforced, if Russia be included. From 1914 to 1922, wheat growing in Russia, not least as a consequence of the agrarian revolution, was reduced to about one third of the pre-war extent. Then began Russia's struggle for her place on the world wheat market with the help of the large mechanised farms and accompanied by an immense extension of the wheat growing area. This in 1927 had already reached the extent of 1914, and in 1930 had already exceeded the previously largest area under wheat in Russia (1913). The wheat areas of the world accordingly underwent within 9 years (1922-1930) an expansion of more than 30 per cent., and have thus risen considerably more quickly than the world population.

Wheat Cultivation of the World

(World apart from U. S. S. R., China, Turkey, Persia and Irak).

Years	Area sown 1000 ha	Area harvested 1000 ha	Yield per ha harvested quintals	Production 1000 quintals
Average 1909-13	82,030	80,100	10.3	827,600
1923	92,890	90,130	10.5	946,200
1924	90,370	88,340	9.5	840,300
1925	93,760	89,490	10.2	908,600
1926	94,500	93,150	9.9	924,400
1927	98,130	95,530	10.3	982,800
1928	103,590	98,840	10.8	1,072,200
1929	100,660	97,690	9.6	939,500
1930	103,440	101,070	10.0	1,011,600
1931	99,090	97,710	10.2	999,300
1932	102,880	99,330	10.1	999,600

(b) *Development of Unitary Yields*

Taking the wheat growing of the world, apart from Russia, from 1901 to 1914 the unitary yields showed a not inconsiderable rise, although of course the yield remained actually small. After the serious decline of the yields per unit at the time of the world war there followed from 1916 onwards a rise, at first slow but gradually increasing, in the yields, so that already in 1928 the high average yield of the three last pre-war years was again reached.

The wheat yields of the world *including* Russia show the same development as apart from Russia, except that in the pre-war time the low Russian yields depressed the world average yields by about 1 quintal per hectare, or about 10 per cent. ; in the post-war years on the other hand in consequence of improved methods of cultivation the Russian yields were considerably higher, so that their effect was to lower the average world yields by about 5 per cent. only ; accordingly the average world wheat unitary yields during the post-war period exceeded those of the pre-war time.

(c) *Development of Aggregate World Production*

The wheat production of the world, apart from Russia, showed a steady increase with somewhat wide fluctuations in the pre-war time, and in 1915 there was a record total production about 50 per cent. higher than in 1901. In war time, from 1915 to 1917, the production dropped back to below the level of the year 1903. There followed however a fresh, still more rapid, rise in the production which as early as 1923 was in advance of the point reached in 1915, and in 1931 totalled nearly 102 millions tons, or about 60 per cent. of the wheat production of the world at the beginning of the century.

The wheat production of the world including Russia followed the same course, except that the production rose still more rapidly : up to 1915 by about 56 per cent. and up to 1931 by about 74 per cent.

3. — The World Trade in Wheat (1).

The wheat trade of the world, excluding Russia, increased considerably during the pre-war time ; the volume of trade became larger by 33 per cent. between 1903 and 1913. During the war the world trade in wheat underwent an extraordinary shrinkage and up to 1918 declined to some 50 per cent. of the volume in 1913. In the post-war period owing to the need for foodstuffs in Europe there was an unusually rapid recovery of trade, so that already in 1920 the 1911-1913 volume was again reached. Under the pressure of the rapidly increasing overseas production there was an unprecedented continuous rise in the world wheat trade, which in 1929 reached a total turnover of about 24.5 million tons, *i. e.*, an advance as compared with 1903 of about 60 per cent. and as compared with 1913 of about 12 per cent.

(1) Total import of all countries, apart from Russia.

*Net Wheat Exports *)*

(1000 quintals)

Year August 1st.-July 31st	Canada	United States	Argentina	Australia	Four chief Exporting Countries	Other Exporting Countries apart from Russia	U. S. S. R.	World Exports
Average 1909-10-1913-14	25,800	29,700	22,900	14,900	93,300	46,500	44,700	184,500
1923-24	93,700	33,800	46,700	22,000	197,100	20,600	5,600	223,300
1924-25	51,900	69,300	33,400	33,200	187,800	21,000	—	208,800
1925-26	87,800	28,000	25,600	20,600	162,000	18,200	7,600	187,800
1926-27	79,200	53,600	38,900	27,500	199,200	15,800	13,300	228,300
1927-28	90,100	49,600	48,300	18,900	206,000	14,800	700	222,400
1928-29	110,100	40,400	60,300	29,100	239,900	14,200	—	254,100
1929-30	50,100	38,600	41,000	16,600	146,300	20,300	2,600	169,200
1930-31	70,100	30,300	33,800	41,000	175,100	20,000	30,900	226,300
1931-32 (estimated) . . .	56,100	30,500	37,900	41,900	166,400	30,600	17,100	214,400

(*) Wheat and flour reduced to grain.

If the direction of the world wheat trade is examined a marked structural change is noticeable in the post-war period. Whereas before the war 91 per cent of the quantities entering the world market went to Europe, this proportion became essentially smaller after the war in consequence of the barriers raised by the former purchasing countries. In spite of the great increase in the world wheat trade during the post-war period, the import of wheat into Europe up to 1926 did not reach the pre-war volume of 1909-1913. Only in 1927, when under the pressure of the overseas wheat stocks wave after wave of wheat rolled on to Europe, was the pre-war volume exceeded.

Afterwards up to 1930 as the result of the trade restrictions imposed by the purchasing countries, the quantities imported fell below the pre-war volume.

The wheat driven off the European market had to find other markets, and these were partly forthcoming in the growing import requirements of the Far East. In particular Australia has taken advantage of this, as giving her a nearer market. Under the pressure of continually increasing world wheat stocks the United States and Canada are making special efforts with the help of large credits to open new marketing possibilities for their surplus wheat in China. How far, if at all, these efforts will meet with lasting success, it is impossible to foretell.

Even more decisive and important than the change, which has taken place in the world wheat trade, is the structural change, which the wheat supply of industrial Europe has undergone since the beginning of the century (Graph IV).

At the beginning of the twentieth century the wheat exports from the overseas countries, especially from the United States of America, began to decline sharply. Instead, the agrarian countries of Europe, Russia and the Balkan countries, took the leading place among the suppliers of industrial Europe. In consequence of the growing economic interdependence of industrial Europe and the overseas countries, the United States and Canada somewhat suddenly in 1910 entered the European markets with large wheat exports and in a short time forced the agrarian States out of their special position. In 1910 the agrarian countries contributed 75 per cent. of the wheat supply of industrial Europe, in 1913 only about 52 per cent. The outbreak of war in 1914 put a speedy end to the export from the belligerent agrarian States of Europe (Russia and the Balkan countries). It then fell to North America to replace for the Allies the wheat formerly exported from Russia and the Danube valley, now cut off from the consuming countries, and from 1916 to 1920 the North American supplies amounted to from 97 to 99 per cent. of the total wheat requirements.

By the Revolution which followed on the war the great Russian Empire was converted into a domain of small farming, state controlled industry and export trade. As a result of the agrarian revolution and, later, of the policy of industrialisation agricultural products ceased to flow regularly from Russia into the Western European industrial areas and in some years Russia was even obliged to import wheat.

The above is not only one of the most important among post-war developments, but also one of the keys to the understanding of present currents and under currents in Russian agriculture directed towards the establishment of fully mechanised giant farms.

Rumania and the remaining Balkan lands have followed Russia in carrying out drastic agrarian reforms (1). The agrarian crisis of the Eastern and South Eastern European States was largely due to the decline in agricultural production as the consequence of the post-war agrarian reforms which had been carried through too hastily and without a proper economic basis.

The consequence for the States of Eastern Europe, excluding Russia, was a shrinkage in wheat exports (see Graph IV) and in the import of manufactured goods. These countries, indeed, could no more speak of "overseas competition" on the European market, as in consequence of the decline in production they had no wheat surplus worth mention. This situation underwent a change later, and these countries recently began to export once more large surpluses, which could only be placed on the European markets. Here the competition of the overseas supplies is encountered, although this is being gradually overcome, not without a severe struggle and serious political sacrifices.

Up to the middle of 1930 the wheat surplus of Russia remained small and the requirements were still in part met by imports. It was not till July 1930 that any real effort was made towards resumption of the former position of Russia on the world wheat market. The prospects of further development of Russia's wheat export are, however, still extremely uncertain. Indeed as shown by the preceding table, the record figure of 1930-31 was not maintained, and since 1931-32 a fresh diminution of exports took place.

It is very probable that economic and financial consideration will be likely to force upon Soviet Russia and the agricultural countries of Eastern Europe an increase of their wheat exports. At the same time, the wheat import requirements of industrial Europe have considerably diminished since 1927 and will probably further decrease. Up to the present the overseas countries have had to bear the brunt of the loss of the European markets. A situation as regards the wheat supply of industrial Europe is obviously forming which greatly resembles that of the pre-war period.

4. — Survey.

The outlook as regards the future prospects of the world wheat market would seem from these investigations to be extremely unfavourable. This finds confirmation also in the extremely depressed situation of the wheat export market. In any case these enquiries clearly show that both the area under wheat and the wheat production of the world have outstripped the population increase and therewith the demand. The impulse to this development was given by the great rise in wheat prices on the world market during the world war. The price rise at the outbreak of war in the crop year 1914-15 brought about only a relative extension in areas, but this rise was of short duration only

(1) HOLLMANN, Dr., *Die Agrarkrise der ost- und sudosteuropäischen Staaten*, in « Deutsche Agrarpolitik in Rahmen der inneren und äusseren Wirtschaftspolitik ». Bd. 3.

(see Graph V) and there was a much more rapid rise in prices of live stock products. The exceptionally sharp rise of wheat prices in 1916-17 to three times the pre-war prices and the height reached by wheat prices in 1917-18 and 1918-19 could not prevent a sharp decline in wheat areas overseas, since livestock products commanded still higher prices. When in 1918 there was a severe set-back in prices of livestock products, the area under wheat in the United States underwent an immense extension. This expansion of wheat growing was due to the raised wheat prices, which in 1917-18 and 1918-19 were 2.25 times the pre-war prices and in 1929-30 were three times these prices. When however in 1920-21 wheat prices fell abruptly, the United States were obliged again considerably to reduce the areas under wheat. The wheat prices fell rapidly till in 1923-24 the pre-war situation was reached. In 1924-25 prices once more rose to twice the pre-war level. This rise, which was not accompanied by a corresponding rise in prices of livestock products, brought about, taken in conjunction with the great advance in mechanisation, that great extension of wheat areas and of wheat production in the lands still under settlement, and in the United States the further extension of the wheat area, which taken all together is threatening to stifle the world with wheat. Although the stocks of wheat were accumulating from year to year on the world wheat market, prices of wheat went only slowly back from 1923-24 to the beginning of 1930.

Wheat Stocks on the World Wheat Markets
(in 1000 quintals).

Years	Total	Canada	U. S. A	Argentina	Australia	Other countries	Afloat
1925.	145,900	8,200	31,800	15,800	6,500	71,600	12,000
1926.	166,500	10,900	27,200	18,200	4,600	90 600	15,000
1927.	176,700	14,400	32,400	18,800	6,300	88,200	16,600
1928.	196,000	25,000	34,600	25,900	7,300	85,800	17,400
1929.	267,100	34,600	66,700	35,400	7,300	106,200	16,900
1930.	252,200	34,600	80,600	17,700	10,100	95,000	14,200
1931.	276,000	38,100	90,900	21,800	12,500	96,900	15,800
1932.	264,200	37,000	103,100	16,300	10,900	83,300	13,600

These conditions changed very suddenly when Russia in June 1930 began the struggle for its former place on the world wheat market, and threw large quantities of wheat on the world market at disastrous prices. In the four

months June to September 1930 the price of No. 1 Manitoba wheat fell nearly 45 per cent. in consequence of the Russian sales at these ruinously low prices. Since then wheat prices on the world market have continued to fall and at the end of 1932 they were even nearly 50 per cent below the pre-war prices. In any case there can be no doubt that an essential cause of the abrupt decline of the world wheat prices was the Russian export, both from its immense volume and from the method of marketing employed.

It is impossible even approximately to foretell the direction of any future developments on the world wheat market; as this depends on a number of factors, not merely economic but also political, the effect of which cannot be determined in advance. An increased consumption of wheat in consequence of growth of the world population in the past was undoubtedly a factor, but in the near future this increase in consumption is likely to take place slowly. The development of wheat consumption in the world generally is also a matter of considerable uncertainty. In the case of the actual wheat consuming peoples there has undoubtedly been a retrogression in consumption by about 8 to 10 per cent., and this taken together with the higher (or at least unchanged) wheat production per head of the world population must lead to the accumulation of still larger stocks and to price falls. A decline in wheat consumption on the part of this population group, even if no more than a 5 per cent. decline, involves a marketing loss of about two million tons. How far, on the other hand, it will prove possible to induce that half of the world population that now consumes rice or millet to consume wheat instead, is equally beyond calculation. In any case the fact that the world wheat stocks are not still larger than they are is probably to be attributed to the increasing trade in wheat in the Far East.

The judgment of the outlook in regard to the world wheat market tends to be increasingly pessimistic, particularly on account of the apprehension felt at the prospect of a fresh appearance of Russia as a wheat exporter. Russia is at present a very real factor on the world wheat market, but a wholly incalculable one. In 1930 the wheat production of Russia amounted to about 23 per cent. of the world production, that is to say, from one and a half to two times the capacity of the world wheat market. Even if Russia were a country with a free economy, the fluctuations of the Russian wheat harvests could not fail to be of great influence on the world market. A Bolshevist Russia with a monopoly of foreign trade, forced requisitions within the country itself and measures of food control for the population, forms a factor which can by no means be overlooked. The second Five-year Plan for agriculture in the U. S. S. R. provides for the extension during 1933 to 1937 of the total sown areas to 200 million hectares, the intention being to increase the gross production of cereals, by means of further application of machinery and of fertilisers, to 60 per cent. of the total agricultural production of Russia. If the Russian Government, by means of requisitions without commensurate payment and by limitation of the bread rations, releases only 10 per cent. even of this production for export purposes, the effect on the world market cannot be otherwise than disastrous.

VI. — GENERAL SURVEY.

1. — The very marked increase of the population of the world which occasioned the rapid progressive development of world agriculture in the pre-war period was not continued in the post-war period. Some signs of fatigue in this respect appeared before the war, and after the war, certainly from 1921, the world population began relatively to decline under the influence of the reduction in the birth rate. The sudden check in the population increase was most noticeable precisely in those countries which had been regarded as the consuming countries on the world wheat market. This tendency will become more pronounced in the near future, although there is no reason to anticipate an absolute decrease of population to the extent of depopulation of the globe.

2. — The centre of gravity of world agriculture has been shifted since the war more markedly than before to the side of arable, and particularly of wheat cultivation. In consequence the areas under wheat in the world have increased more rapidly than the population. The expansion of wheat growing has occurred almost exclusively in the overseas countries. There, owing to natural and economic conditions and to the system of land tenure, a high degree of freedom in direction is possible for agricultural production in the primary stages. Any graphic representation of the development shows marked fluctuations, and the distinctive character of these is due to the competition between extensive arable cultivation and extensive livestock farming.

Under the influence of the progress made in plant-breeding, and in the technique of machinery and cultivation in general, an extraordinary capacity for expansion was achieved after the war in wheat growing. The modern agricultural machine has essentially contributed to the recent land clearings and transformations in the overseas arable areas, and may probably have in addition contributed in Canada, Argentina and Australia to facilitate the transition to wheat growing on the large ranch or similar area, and generally to render the cultivation more intensive.

3. — The agricultural development of the new countries does not depend so closely upon immigration, as is often assumed.

4. — As a means of increasing crop yields, plant breeding ranks first in overseas countries among the advances made in agricultural technique. Selected kinds suited to the vegetative and economic conditions of the countries have rapidly been diffused, so that, with the exception of Australia, the average yields have not fallen, in spite of the rapid expansion of the areas, and indeed have, in some cases, on the contrary, risen.

5. — Thanks to extension of areas and technical progress the wheat production of the world has risen at a rate more rapid than corresponds to the natural growth of the world population. This fact together with a diminution in *per*

capita wheat consumption in many countries has led to the accumulation of large stocks of wheat on the world wheat markets and to heavy price declines. In the case of wheat production, possibilities have proved to be in advance of marketing facilities.

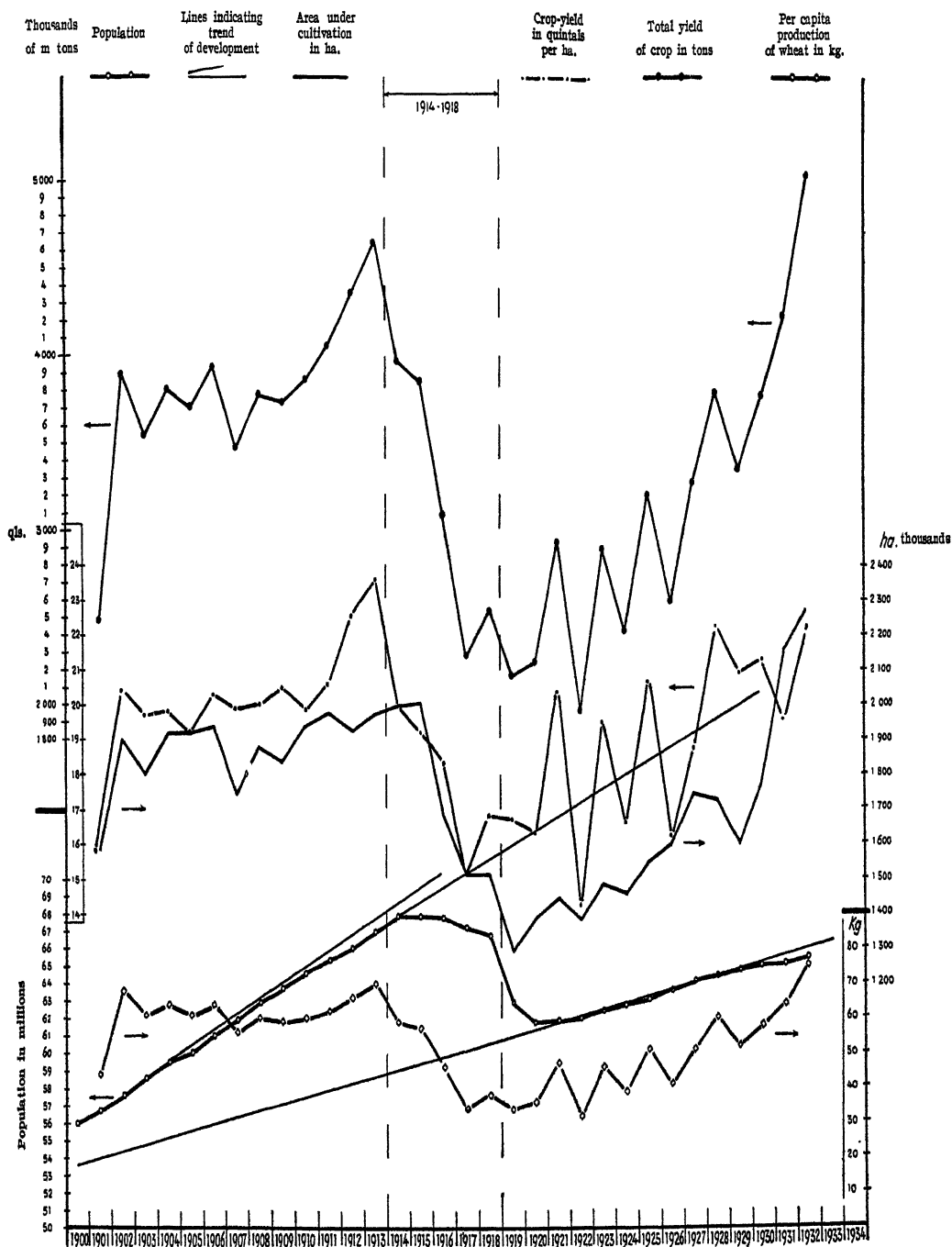
6. — In the world wheat trade certain changes became clearly noticeable shortly before the war, indicating that the source of the wheat supply of industrial Europe was being shifted to the overseas countries. On the outbreak of war, with the resulting isolation of Russia and of the Balkan countries, the overseas countries became the exclusive suppliers of the European wheat market. Under the pressure of the world economic crisis the European national States are beginning to practise a policy of agricultural self-sufficiency, under which the national agriculture takes a foremost place in the supply of the home market. For the rest the trade policy of these States is definitely oriented towards South and South-Eastern Europe, so that the share of the agrarian States in meeting the wheat import requirements of industrial Europe is steadily on the increase. The importance of the agriculture of the old industrial countries and of the agrarian States of Europe for the supply of industrial Europe will probably in the near future be very considerably increased, while the agriculture of the overseas countries, on the other hand, will to some extent recede.

7. — The trend of the price movements for the chief agricultural products already indicates that arable cultivation, in particular wheat-growing, has already on its forward march overstepped the critical point. It may be taken as certain that the tendency to extend wheat cultivation will not persist; there is much to show that in the next few years a change-over towards livestock farming will set in. It can be no matter for surprise if within the next few years wheat growing in the overseas countries undergoes a not inconsiderable decline, and only in this way is it possible to secure the recovery of world agriculture.

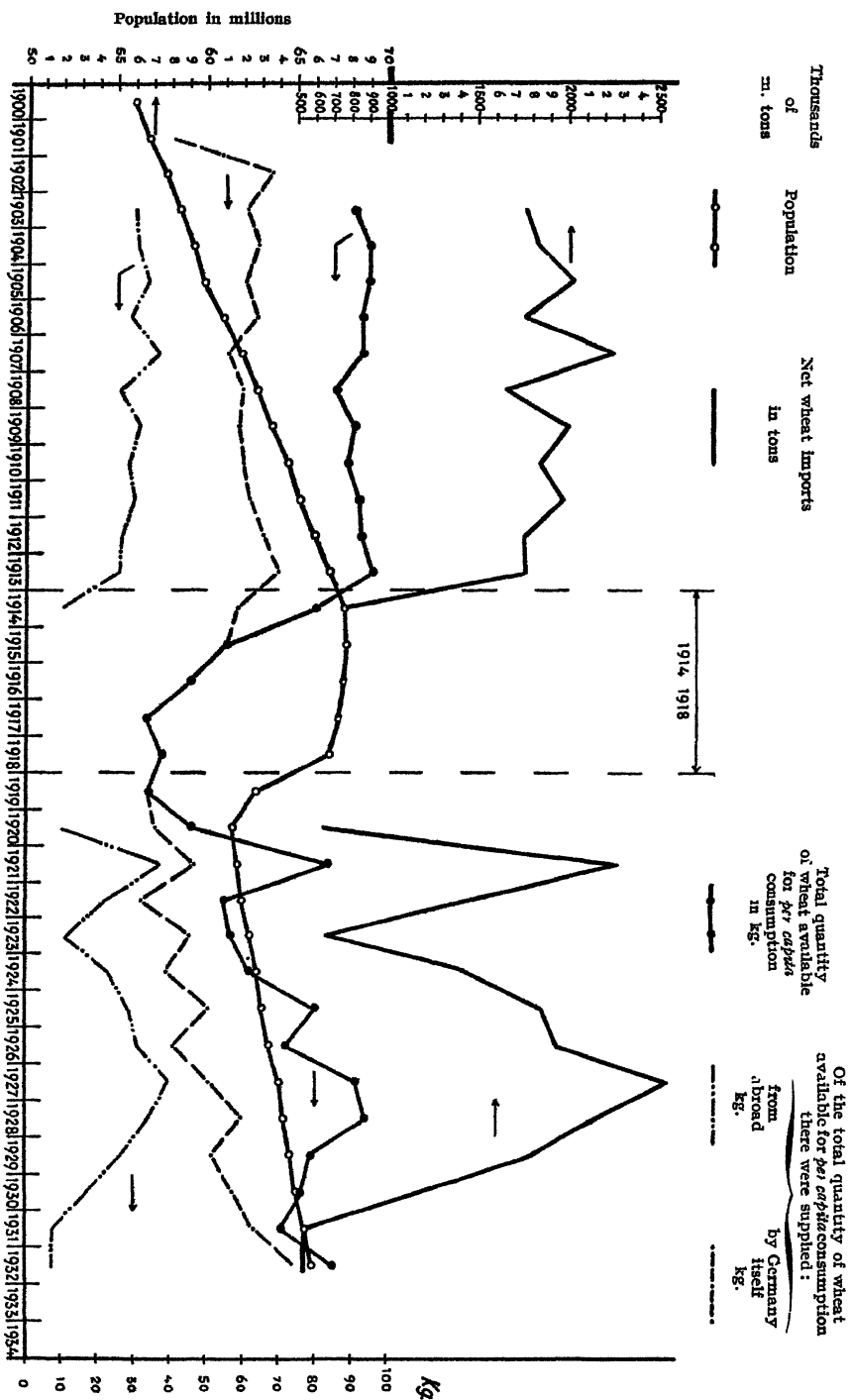
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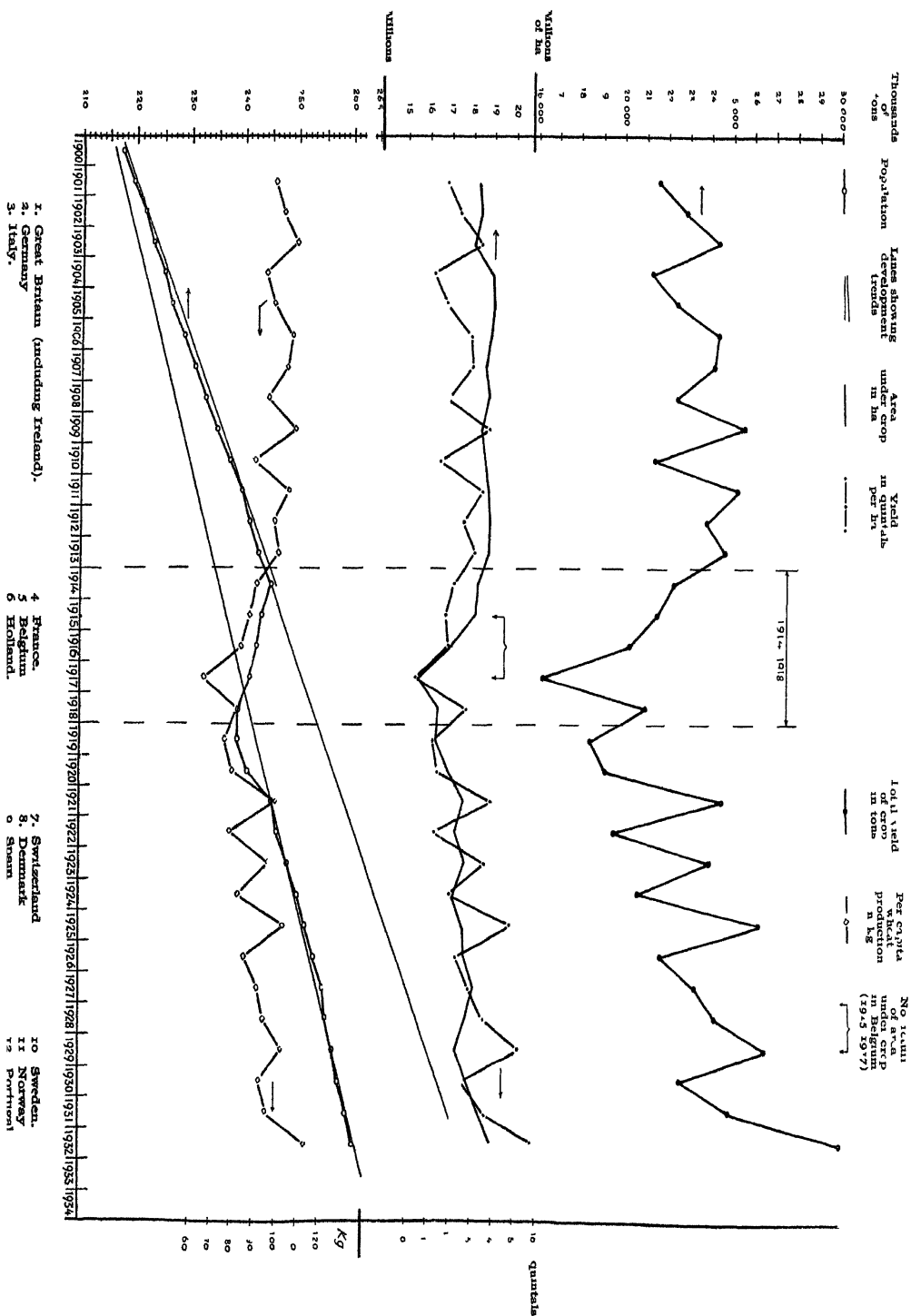
GRAPH I-a. — *Wheat production and Population Development in Germany.*



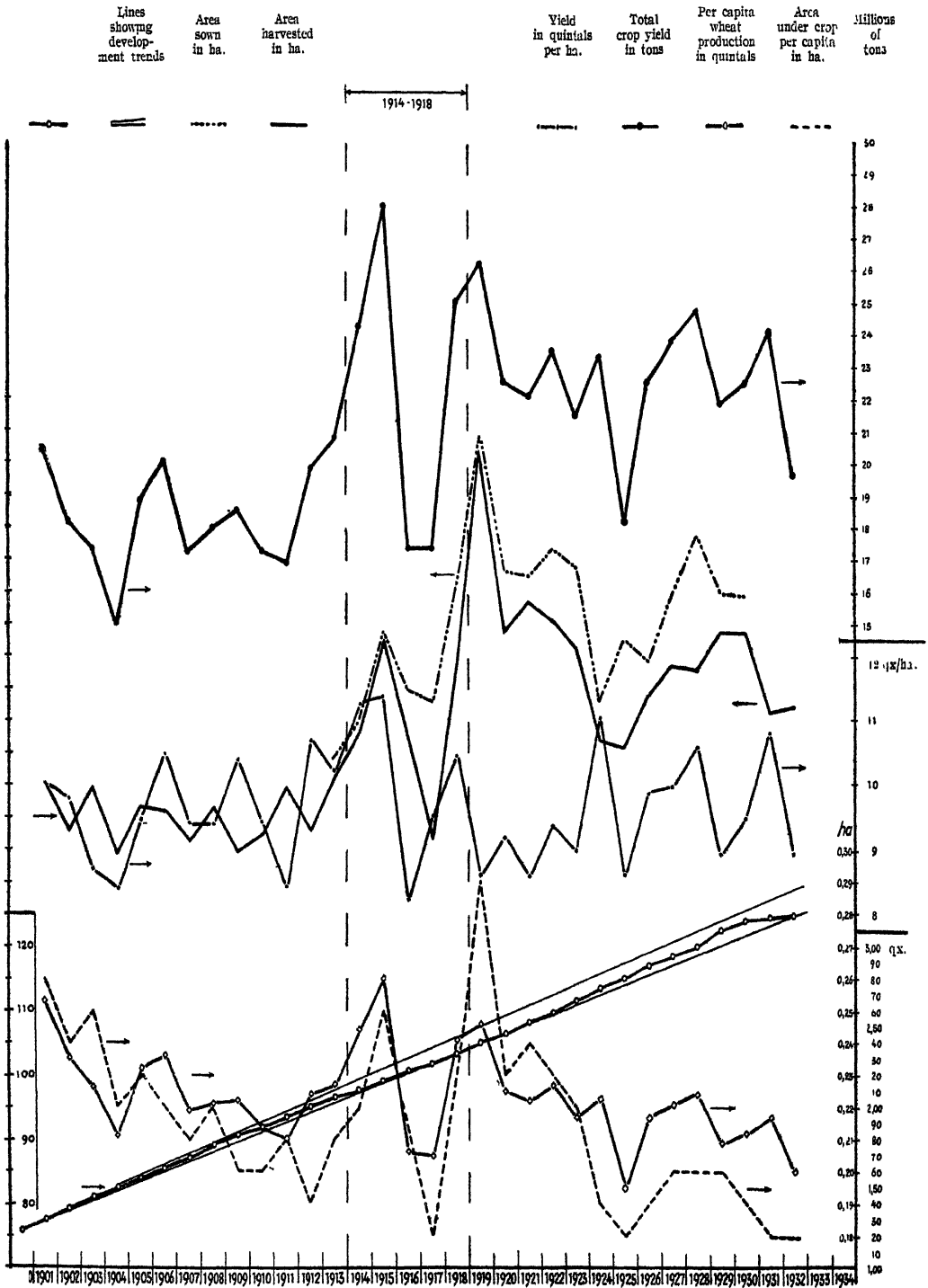
GRAPH I-b. — *Population, wheat importation and consumption in Germany.*



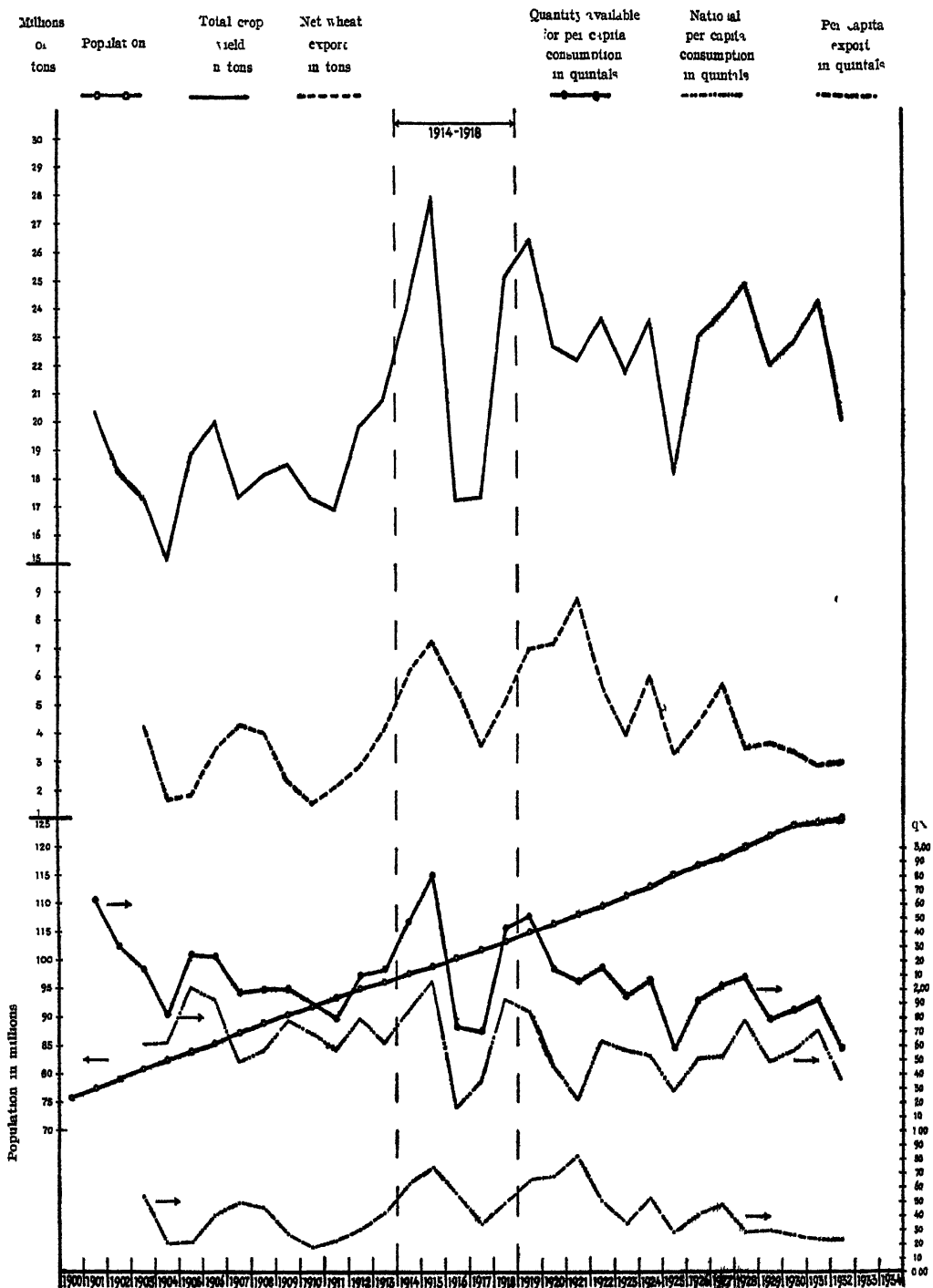
GRAPH II-a. — *Wheat Production and Population Development in the principal European countries 1901-1954*



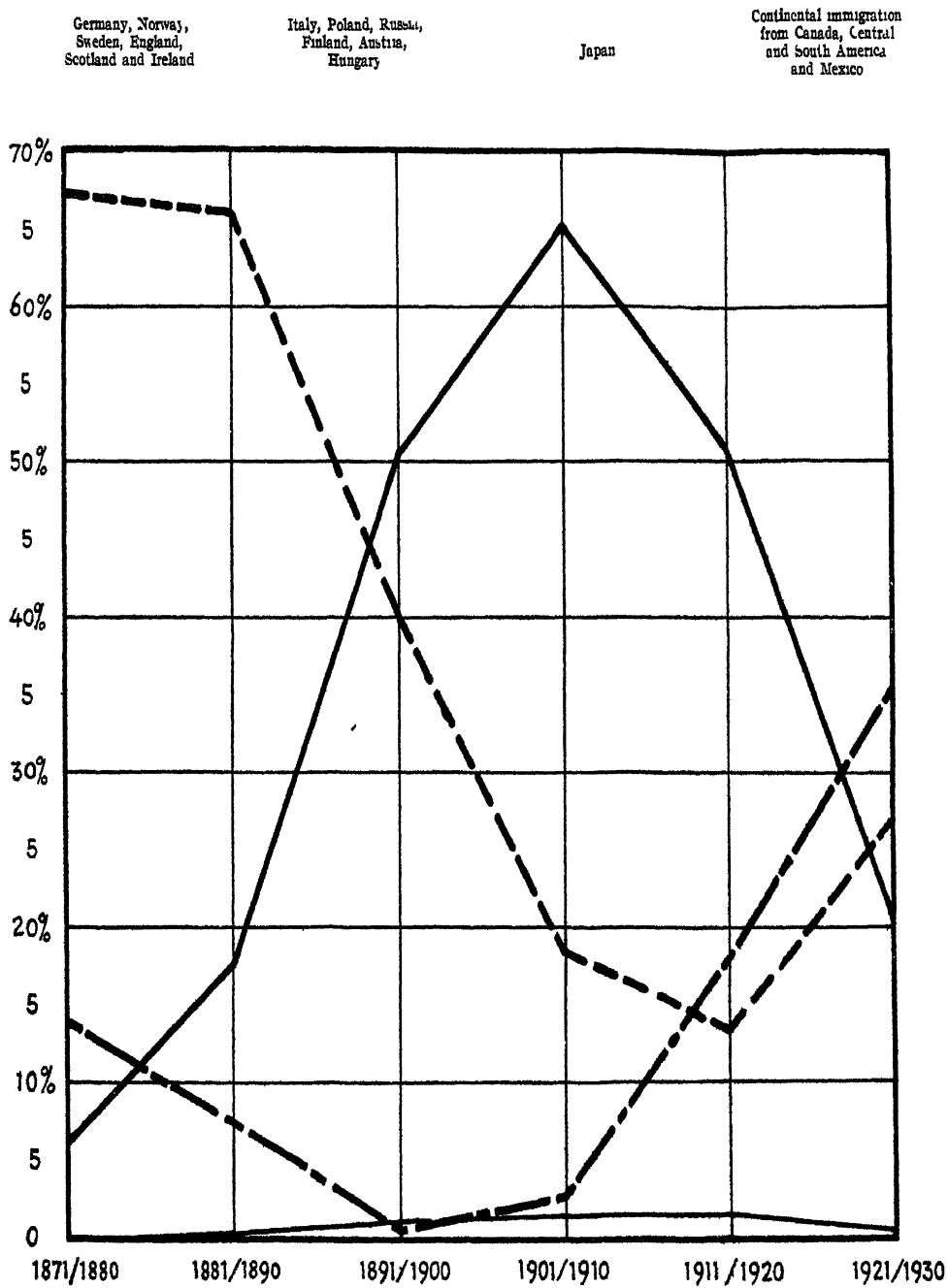
GRAPH III-a. — *Wheat Production and Population Development in the United States of America.*



GRAPH III-b. — *Population, Wheat Exportation and Consumption in the United States of America*

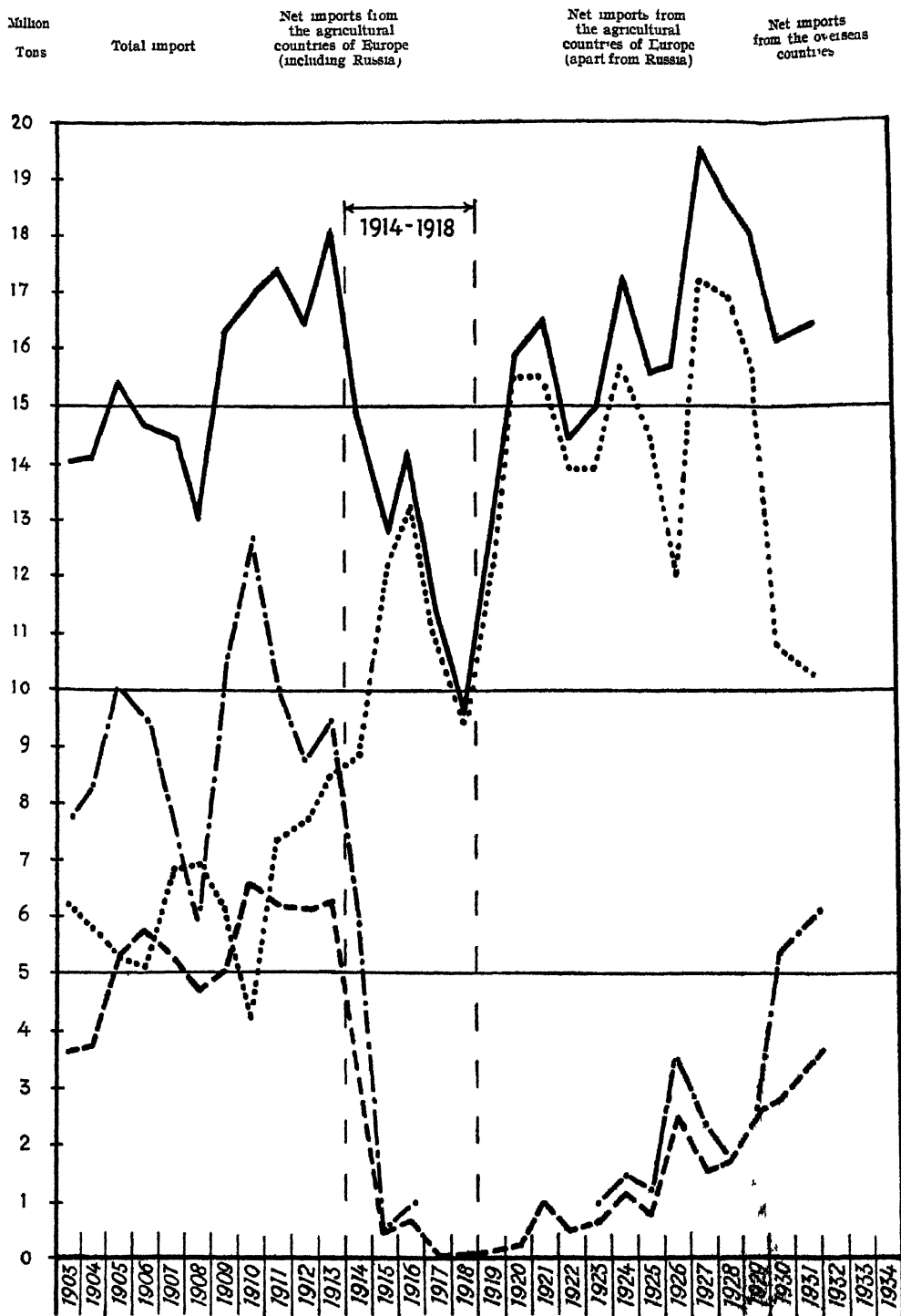


GRAPH III-c. — Immigration into the United States grouped by countries of origin from 1871-70 to 1921-30 ().

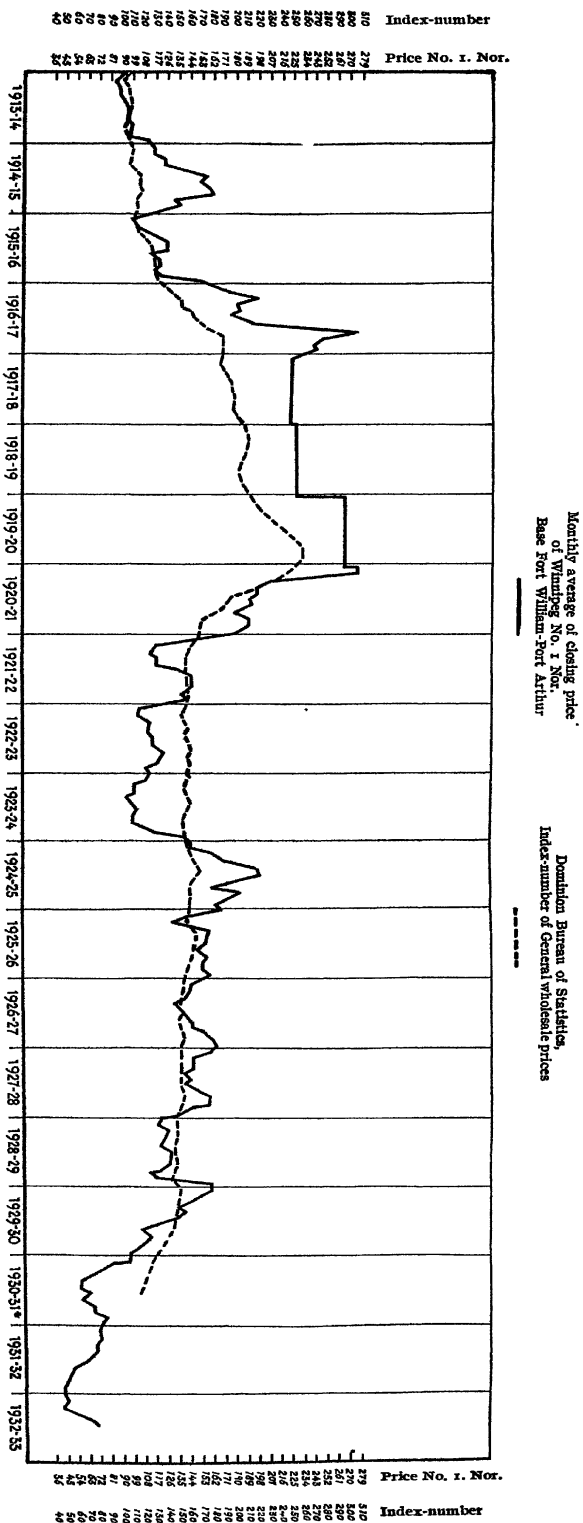


(*) According to the "Statistical Abstract".

GRAPH IV. — *The wheat Imports of Industrial Europe and the origin.*

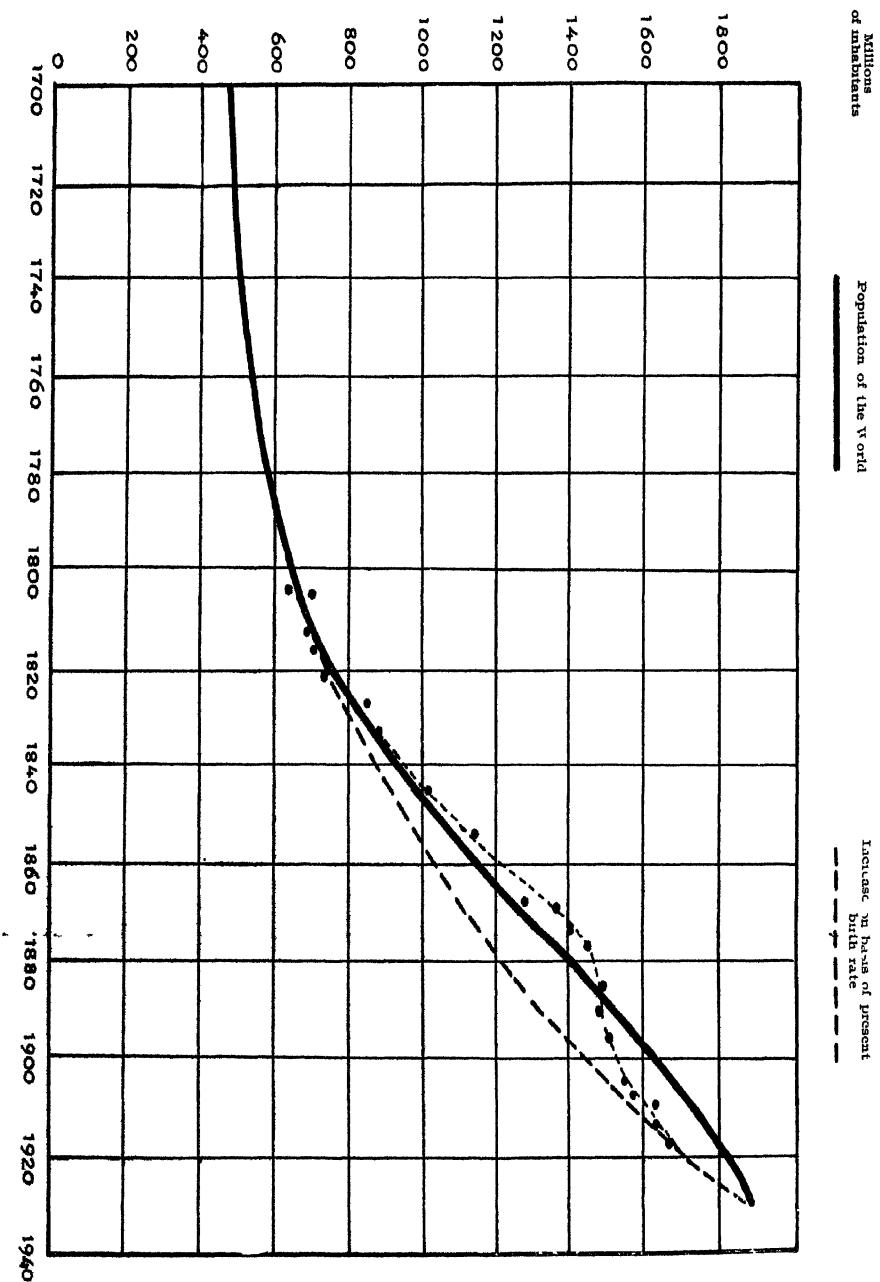


GRAPH V. — *Winnipeg No. 1 Northern Wheat and Index-number of General Wholesale Prices.*



* From August 1931 Chicago futures price (Report of the Commission on Trading in Grain, February, 1931).

GRAPH VI. — *The Population of the World, 1700-1924* (*).



(*) O. H. BAKER: "The Outlook for land utilization in the United States".

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[Résumé en anglais et français.]

Industry.

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CO-OPERATION

Agricultural Co-operation in Latvia (I).

SOME GEOGRAPHICAL AND HISTORICAL NOTES.

Latvia, which has been since 1918 an independent State, belongs to the group of the Baltic countries. Before the war it was an integral part of the Russian Empire and its national independence dates from 1918. The capital of Latvia is Riga, the territorial extent is 65,791 square kilometres, and the population 1.9 million according to the census of 1930. During the great war Latvia formed the battle ground between the Russian and the German armies ; then followed the Russian Revolution and the war of independence with the result that the devastation inflicted upon the country can be compared only with that of the North of France and Belgium. Latvia is essentially a country of small holdings, since by the agrarian reform legislation (1920) subdivision of the large estates into units not exceeding 27 hectares was enforced.

PRE-WAR CO-OPERATION.

The first societies of a co-operative character founded on the present territory of Latvia were as follows :—

- (1) The Vidzeme Sheep-Breeders' Society (Livonia), founded in 1830.
- (2) Vidzeme Mutual Hail Insurance Society, founded in 1831.
- (3) Vidzeme Mutual Fire Insurance Society, founded in 1861.

A close connection existed between the foundation and the course of the activity of these societies and the work of the Livonian General Economic Public Utility Society, founded in 1796, which is the earliest of the Latvian societies formed for the promotion and development of agriculture.

The object of the sheep-breeders' society was to develop the breeding industry, to secure the good quality of the breeding animals and to organise the joint sale of wool in such a way as better to profit by market conditions. It may be noted that the foundation of this society closely coincided with the agricultural crisis which occurred about 1820 in consequence of the sudden fall in the price of wheat. The large landowners then began to breed sheep.

The societies that have just been mentioned had been founded by the large landowners who were almost without exception Germans.

(1) For the communication of the above account of agricultural co-operation in Latvia the Institute is indebted to the Ministry of Agriculture of Latvia.

Small ownership only began to develop in Latvia towards the middle of the XIXth century. From this epoch also date the first co-operative undertakings, as organised by the peasant farmers who for the most part were of Latvian nationality.

The first co-operative undertakings organised by the peasants were co-operative credit societies and mutual insurance societies. The first co-operative credit society was founded by the Latvian peasant farmers about 1840. These societies were however short-lived, the Russian public authorities prohibited their activity on the pretext that credit operations could be effected only by credit societies formed among the noble classes. A real expansion of peasant co-operative credit societies began only in 1874 and attained its culmination towards 1880. The reason for the formation of numerous co-operative credit societies at this time may be found in the fall of the prices of agricultural products (especially wheat and flax), and in the want of liquid assets which was affecting the peasant farmer class. Many heavily indebted farms were put up for auction. The Government gave no assistance and the peasants, thrown upon their own resources, endeavoured to find a way out of the situation in the foundation of co-operative credit societies.

The subsequent formation of co-operative credit societies proceeded somewhat rapidly, so that on the eve of the great war Latvia was covered with a comparatively close network of co-operative societies. The number of co-operative societies in working at this time was in fact 236, the majority being credit societies.

The co-operative credit societies of Latvia belong to the Schultze-Delitsch type. All the funds are collected by the exertions of the members themselves without any assistance from the Government or from the municipal and communal administrations, which were before the war in the hands of the large land owners, the Baltic barons. It is of interest that local deposits represented 86 per cent. of the aggregate balance sheet totals of all the co-operative credit societies. These societies in addition gave proof of great vitality; out of all the co-operative societies founded before the war, 95 per cent. were still working in 1914, so that the percentage of societies liquidated is represented by 5 per cent. It may be noted that all the attempts of these co-operative societies to organise a central union grouping the separate undertakings were without result, as the Russian Government would not consent to authorise the foundation of such a central union.

Co-operative Mutual Insurance Societies have also made remarkable progress. Although the first co-operative fire insurance society was not founded till 1880 when the Government authorisation was granted through registration of statutes, peasant farmer unions for the purpose of mutual insurance were formed already about 1860 and especially towards 1870. In 1914, on the eve of the great war, there were in Latvia about 300 societies of mutual fire insurance. Towards 1880 there were also founded some small farmers' hail insurance societies, but these have not met with much success and this branch of co-operation makes no progress.

Among the consumers' societies organised by the farming class special mention should be made of co-operative farming societies and consumers' societies in the rural districts. The first peasants' farming societies were founded towards

1870, the first initiative of this kind was taken in 1855. The original object of these societies was to diffuse agricultural information, but later their activities were engaged in the purchase of agricultural requisites of all kinds

It should however be noted that the farming societies founded about 1870 were by no means completely independent societies, for they merely represent the peasant sections of the German General Economic Society mentioned above. None the less these societies have exercised an undeniably favourable influence on the progress of agricultural knowledge among the Latvian peasant farmers.

From 1870, under the impulse of the ideal of national reconstruction, tendencies begin to appear calling for the formation of independent Latvian farming societies. But it was only after 1885, and not without having first to overcome a certain opposition on the part of the large land owners — the Baltic barons — that the Latvian peasant farmers received the authorisation to form independent farming societies. Up to the time of the great war nearly 200 farming societies were thus formed.

In 1906 effect was given to the desire of the Latvian peasant farmers to form a Central Union of farming societies, and permission was obtained from the Government to found at Riga the Central Society of Agriculture. This society is now in operation under the name of "Latvijas lausaimnieku centralbiedriba" (Latvian Farmers' Central Society). It is a union of agricultural societies with the object of improving the standard of cultivation and of all the branches of production subsidiary to agriculture.

The first rural consumers' society was founded in 1889 whereas the first urban consumers' society had been founded at Riga in 1865. The years 1890-95 was a period of special activity in the forming of consumers' societies. Up to the time of the outbreak of war about 150 consumers' societies had been formed. The special object of the rural societies of the kind was the purchase of products and commodities for the personal requirements of the farmers as well as for the requirements of agricultural production.

In consequence of the difficulties encountered by these consumers' societies, from 1890 onwards a desire began to be expressed for the formation of a union for wholesale purchase of requisites. The refusal on the part of the Russian Government to authorise the formation of such a society made all efforts vain up to the time of the war.

The marked activity in the foundation of farming societies and consumer societies about 1890 finds an explanation in the severe agricultural crisis which occurred from 1880 to 1890. Moreover the formation of these co-operative societies was strongly influenced by the nationalist efforts of the Latvian peasant farmers who were trying to free themselves from economic dependence on the foreign element. It is essential to lay emphasis on this reason which has played a primary part in the development of co-operation in Latvia.

The co-operative marketing societies were the last to be developed, immediately before the war. Only a single type of these societies is to be found in Latvia, namely the dairy societies. The object of these is the production of butter of very good quality and the organisation of the sale of such butter on the most favourable terms possible.

The first dairy society was founded in 1909. Subsequently the foundation of these societies proceeded more rapidly, so that on the eve of the war their number had reached 95. The dairy societies obtain financial assistance from the co-operative credit societies founded by the same members of the farming class.

Steps have been taken since the war to form a Central Union of Dairying societies, but all efforts in this direction were cut short by the outbreak of the war in 1914.

POST-WAR CO-OPERATION.

The co-operative societies established before the war were almost wiped out in the course of the hostilities, since Latvian territory, as already stated, was over a prolonged period the scene of the military operations. Later came the period of the German occupation and the German authorities were entirely unfavourable to all co-operative movements.

After the war, when Latvia became an independent state, it proved necessary to start afresh on the work of organising co-operation. Life had to be reconstructed on the ruins. And in this work of reconstruction a part of primary importance was played by co-operation.

In 1919, 1920 and 1921 the consumers' societies engaged the full attention of the population, and the explanation of this is an obvious one. The country was completely devastated, everything in ruins and destitution everywhere prevailing. It was only later when more normal conditions began to be established, that the remaining types of co-operation regained importance. Then it was that steps were taken to organise co-operative credit societies, mutual insurance societies for joint use of farm machines, for improvement of the soil, etc.

Rural consumers' societies. — These societies at first engaged exclusively in the supply of food stuffs, and it was only later that they began to supply also farm requisites such as chemical fertilisers, concentrated feeding stuffs, machines, implements, etc., in this way taking the place of the pre-war farming societies. These latter societies have not at present regained their former significance.

The following table gives a general view of the development of rural consumers' societies:

Years	Consumer Societies	Membership in thousands	Aggregate of balance millions of la's (= gold francs)
1921	286	44.1	1.1
1922	294	45.8	1.9
1923	295	46.6	3.9
1924	300	48.7	6.4
1925	284	49.4	9.0
1926	273	47.3	9.3
1927	268	43.9	10.2
1928	263	43.1	11.6
1929	253	39.3	12.5
1930	250	37.7	11.8
1931	238	35.3	10.7

No uniformity prevails in the consumers' societies in respect of the social group composition of the membership. At the end of 1931 the lead was taken by the farmer owners; these represented 64.3 per cent. of the total of the members and the relative number of members of this class shows a tendency to increase (in 1921, 46.6 per cent.; in 1929, 57.3 per cent.; in 1930, 62.7 per cent.). The second place is taken by the farm workers 7.9 per cent., and the third by the intellectual workers, 7.3 per cent.

If an examination be made of the composition of the balance sheet totals it will be found that on the side of *liabilities* the heading of owned capital (members' shares and owned capital) represented in proportion to the aggregate of the balance sheet totals the following percentages:

in 1921 on 31 December	24.6 per cent.
1929 31 »	23.8 »
1930 31 »	27.7 »
1931 31 »	32.2 »

It should be added that consumers' societies in Latvia have always attached a special importance to the increase of the owned capital. In accordance with the model rules the proportion which should be reserved annually for the increase of the society's owned capital is represented by 40 to 50 per cent. of the net income.

This constitutes the explanation of the fact that in 1930 the members' shares represented only 5.7 per cent. of the aggregate of the balance sheet totals while the owned capital (including the reserve fund and other capital) represented 22.0 per cent., or in other words, nearly four times the shares.

The deposits also represent an important item — thus, in 1930, they represented 16.7 per cent. of the aggregate of the balance sheet totals. The remainder consists of sundry debts (mainly short term) and of the net profit representing, in 1930, 2.8 per cent. of the aggregate.

The progressive situation of the main headings of the *assets* is as follows (shown in percentages of the aggregate of the balance sheet totals):

Years	Commodities	Buildings and undertakings	Borrowers
1921	56.9	18.4	4.7
1929	31.1	26.8	29.0
1930	29.8	30.6	27.0
1931	25.0	33.6	28.5

If the balance sheet totals of the rural consumers' societies are considered as a whole it will be seen that the liabilities are on a very sound basis, while the assets present some definitely unsatisfactory features: (a) an extraordinary inflation under borrowers and (b) a complete discrepancy between the item of buildings and undertakings and the whole structure of the liabilities.

The following is a review of the turnover of the rural consumers' societies (value of commodities sold in millions of lats).

1921	5.5	1927	19.2
1922	8.4	1928	21.7
1923	14.9	1929	24.5
1924	18.7	1930	21.1
1925	20.6	1931	17.3

It is clear from the figures that have been given that consumers' co-operation in the country districts shows a decided tendency to decrease in all respects in the course of the last few years. At this moment it is passing through a relatively acute crisis. This statement is confirmed by the results of the activity of rural consumers' societies in so far as these may be deduced from the heading of profit and loss. A net profit was made in 1929 by 195 societies, or 77 per cent., in 1930 by 179 societies, or 72 per cent., and in 1931 by 133 societies, or 56 per cent.

The Co-operative Credit Societies. — At the present time, as before the war, the co-operative credit societies are the most flourishing and most important branch of co-operation in Latvia. In respect of principles of organisation they may be classed, as before, in the category of societies of the Schultze-Delitsch type.

The position and development of these co-operative credit societies will appear from the following table.

Years (31 December)	Rural co-ops. in full working	Membership (thousands)
1922	117	36.3
1923	170	47.3
1924	311	74.2
1925	363	101.9
1926	386	115.1
1927	386	117.8
1928	381	123.0
1929	378	130.0
1930	379	135.1
1931	380	135.6

Although in the course of the last few years the number of co-operative credit societies has remained stationary, the membership on the other hand has shown a constantly increasing tendency.

Grouping the members by social status, it is found that the farmer owners are in an overwhelming majority, representing 74.4 per cent. of the total members at the end of 1931. At the same period 7.1 per cent. of the membership consisted of rent-paying and produce-sharing tenants. It is of interest to note that among the farmer-owners, the group of new farmers who were settled on the land as the result of the agrarian reform of 1920 is steadily on the increase. The proportion of farmers of this group tends to be larger from year

to year, whereas that of the former farmers tends to diminish. For example, at the end of 1924 these farmers of the earlier period represented 59.1 per cent. of the total membership, while at the end of 1931 the percentage was not more than 51.3, notwithstanding that the absolute figure of this group had increased. On the other hand the proportion of the new group of farmers had increased, from 12.5 per cent. in 1924 to 23.1 per cent. in 1931.

The aggregate of the balance sheet totals of the co-operative credit societies shows the following development (by years and in millions of lats) :

1922 (31 December)	1.4	1927	48.1
1923	6.8	1928	51.1
1924	22.5	1929	58.4
1925	37.2	1930	62.1
1926	43.1	1931	61.1

The reduction of the balance sheet total in 1931 was the result of the policy of restriction of the credits of the Bank of Latvia and of the withdrawal of deposits.

On the liability side of the balance sheets the following figures will be noted for the main headings (in percentages of the aggregate) :

Years	Capital (Shares and reserve funds)	Sundry deposits	Sundry borrowings
1921 (31 December)	9.4	45.5	37.7
1930	16.6	22.7	56.2
1931	17.9	22.0	55.8

Comparing the structure of the balance sheet totals in 1913 and in 1931 the decrease of the deposits is especially noticeable, the decline being from 86 per cent. to 22 per cent. of the aggregate. The explanation lies in the fact that before the war the credits of the State credit institutions were not accessible to the Latvian co-operative credit societies which had to provide for themselves. There has been a great change in these conditions since Latvia became independent.

On the side of the assets a special place is occupied by the loans which at the end of 1931 represented 88.9 per cent. of the aggregate of the balance sheet totals. This relation is comparatively stable, varying between 83.1 per cent. in 1922 to 90.9 per cent. in 1928. It should be added that loans are made to members only. In 1931 3.3 per cent. represented real property and the cash in bank was 1.5 per cent.

As illustration of the results of the activity of the co-operative credit societies some figures may be quoted as to the percentage of the societies which have closed their financial year with a net profit.

Of these there were in :

1922	76.0 per cent.	1927	87.5 per cent.
1923	87.7 »	1928	88.7 »
1924	94.2 »	1929	84.4 »
1925	92.0 »	1930	90.2 »
1926	88.6 »	1931	85.5 »

From these figures it will appear, that this branch of co-operation, as compared with the consumers' societies, shows much better results. In 1931 only 56 per cent. of the consumers' societies closed their financial year with a net profit

CO-OPERATIVE MARKETING SOCIETIES OF AGRICULTURAL PRODUCTS.

Among societies of this type there has been full development of one branch of co-operation only, *viz*, the dairy societies. Other societies of the same kind, such for example as the co-operative slaughter-houses, have remained in the experimental stage and show no tangible results. The dairy societies will accordingly alone receive consideration here

In the first place it should be noted that a large number of the dairy societies have, in addition to a central dairy, one or more centres for cream separating worked jointly. These latter centres collect the milk from the neighbouring farms, proceed to separation of the cream and forward the product to the central dairy for transformation into butter.

The progress of the co-operative dairy societies appears from the following figures :

Year	Co-operative dairy societies	Total number of dairies and cream separating centres
1923 (on 31 December)	319	455
1924	367	497
1925	422	674
1926	449	901
1927	465	1019
1928	455	1160
1929	450	1331
1930	423	1457

The decrease in the number of the dairy societies is mainly due to the fact that certain weaker societies amalgamated with more powerful societies in the neighbourhood and became cream separating centres attached to these latter.

The number of milk suppliers shows a steady increase. In 1925 there were 27,078 suppliers, in 1926 the number had risen to 38,648, in 1929 to 54,030 and in 1930 to 59,748.

A certain redistribution from the point of view of social standing, noticeable in the grouping of the milk suppliers; the new farmers formed 22 per cent. of the total suppliers in 1925 and 31 per cent in 1930. On the other hand the percentage of the farmers of the earlier period fell from 60 to 51.4 over the same period, showing that the new group continue each year to take a more active part in dairying co-operation.

Comparing the total number of milk suppliers with the number of farms in Latvia, it appears that in 1930 about 30 per cent. of the farms supplied milk to the dairy societies. The percentage varies in the different administrative units or communes from 64.1 to 3.7 per cent.

A comparison between the number of dairy cows belonging to the farmers who are suppliers of the dairy societies, and the total of dairy cows in the whole country, shows that the percentage is 44, varying according to the administrative units from 72.3 to 6.6 per cent.

Not all suppliers are also members of the dairy societies, which receive milk from non-members as well as from members. There is even a relative increase in the number of the non-member suppliers.

In 1928 the number of dairy cows owned by members was 142,823, while in 1930 it was 152,505; non-members owned 121,433 and 165,942 dairy cows in the respective years. Hence in 1930 the number of cows belonging to non-members exceeded by 13,000 the number owned by members of the societies. The explanation of this lies in the fact that the farmers of the earlier period, in whose hands is for the most part the management of the societies, view with some apprehension the growth of the influence of the new farmers, and since they are anxious to retain the direction of the societies, they are very chary of accepting new members, especially if they are new farmers.

Quantities of Milk Collected by the Co-operative Dairy Societies (1).

Years	Milk collected (in millions of kg.)	Years	Milk collected (in millions of kg.)
1914	35.6	1926	325.3 (36.1)
1919	2.4	1929	392.1 (36.6)
1923	64.7 (14.9)	1930	479.3 (41.6)
1924	94.9 (18.3)	1931	518.5
1925	172.1 (29.7)		

It will be seen that the part played by the non-co-operative dairies in the dairy industry of the country is relatively small.

The greater proportion of the milk supplied to the dairies is transformed into butter. Thus in 1930 97.3 per cent. of the whole quantity of milk supplied was transformed into butter, and in 1931 the quantity of butter produced was 20,030 tons and 20,072 tons in 1931.

Butter is produced mainly for export. In 1932 Latvia held the seventh place among the butter-exporting countries, its export of butter amounting to 3.34 per cent. of the total world export of butter.

In the course of the last four years, the development of the butter export has been as follows:

Years	Export (in tons)	Value (in lats)
1929.	14,797	58,648
1930.	18,431	57,724
1931.	18,738	46,964
1932.	18,592	30,990

In 1932 the value of the butter exported constituted 32.1 per cent. of the total value of Latvian exports. It is clear that the dairying industry holds a place of first rank in the national economy of Latvia.

(1) Figures in brackets denote the quantities collected by the non-co-operative dairies.

The financial position of the dairy societies appears from the following figures taken from the aggregate of the balance sheet totals for the year 1930. (At the end of 1930 this aggregate total amounted to 28.6 million lats):

Liabilities (in percentages of the total sum)

Members' shares (1)	11.2	
Reserve capital and other capital	13.1	
Reserve for depreciation	21.1	
	—	45.4
Borrowed from the State Land Bank	31.4	
Sundry creditors	16.0	
	—	47.4
Owed to milk suppliers		6.5
Net profit		0.7
Total . . .	100.0	

Assets:

Cash in hand and current account	3.5	
Material etc. in hand	3.8	
Land and buildings	19.7	
Equipment, machines, etc.	36.4	
Sundry accessories	14.0	
	—	70.1
Advances to milk suppliers		8.0
Shares held in other societies		2.5
Other assets		11.2
Total . . .	100.0	

Mutual Fire Insurance Societies. — Like the other co-operative societies, the mutual fire insurance societies were obliged to suspend activity during the war, but as soon as possible afterwards were reconstituted so that shortly after the whole country was covered with a close network of co-operative societies of this kind.

The following figures indicate the course of development of these societies:

Years (31 December)	Societies	Members (thousands)
1920	17	1.9
1921	67	7.6
1922	203	22.9
1923	312	40.4
1924	338	49.3
1925	353	55.4
1926	371	62.8
1927	389	67.6
1928	392	73.5
1929	392	79.1
1930	397	83.8

(1) The total of members' shares is in relation with the number of dairy cows and also with the quantity of milk supplied.

Out of all the farms 36.5 per cent. only members of mutual insurance societies, while the others are insured with commercial insurance companies — all farms being obliged by law in Latvia to take out insurance of this type.

The amount of the insurances shows a constant tendency to increase.

The following are the figures (in millions of lats) :—

1920	9.5	1926	179.9
1921	1.8	1927	212.5
1922	22.7	1928	240.6
1923	58.2	1929	288.3
1924	95.4	1930	329.9
1925	133.7		

The financial results of the activity of the insurance societies are very satisfactory. Expressed as percentages of the total premiums paid the losses caused by fire were 23.1 in 1925, 50.3 in 1929, and 40.3 in 1930. In consequence the societies have been able to accumulate very considerable owned capital. It may be noted that mutual insurance societies do not require members' shares to be paid up.

The following figures show the growth of the total owned capital of the mutual insurance societies (in thousands of lats) :—

1920	1	1926	1042
1921	12	1927	1410
1922	102	1928	1873
1923	251	1929	2225
1924	425	1930	2265
1925	700		

The aggregate of the balance sheet totals in 1930 of all the mutual fire insurance societies was 3.3 million lats. The greater proportion of the liquid money is deposited in local co-operative credit societies. The total amount in 1930 was 1,735,000 lats. Peasant farmer savings thus remain in the hands of the farmers themselves.

Central Unions of Co-operative Societies. — As already stated the Russian Government prior to the war would not permit central unions of co-operative societies to be formed by Latvian co-operators. Not till 1906 was permission granted to form the Central Farmers' Union at Riga (now the Central Farmers' Society of Latvia), the main function of which was to group the farming societies, or the societies exercising supervision over stock breeding and dairy production, as well as other societies of the same kind for diffusion and promotion of agricultural information among the peasant farmers. This organisation has done very valuable work in this connection, and its value has also been very great in respect of the diffusion of the co-operative idea, since it has taken the initiative in a number of co-operative enterprises and has done much to bring about practical results.

It was not till after the war, when Latvia became independent, that it was really open to the co-operative societies to establish central unions. Each

of the four branches reviewed above has established its own Central Union: (1) consumers' co-operative societies and some other co-operative societies, the Central Society "Konzums"; (2) the co-operative credit societies, the Peoples' Bank of Latvia; (3) the dairy societies, Central Union of Dairies of Latvia; (4) the mutual fire insurance societies, Central Union of Mutual Insurance.

In addition there have been founded some other central unions the importance of which is however relatively small.

A brief survey of each of these Unions will now be given, but it may be stated in passing that their foundation is considered as very characteristic for Latvia. Each one of them has a propaganda section which is usually known as the Instructors' Section.

These sections carry on general propaganda work, and also organise courses, lectures, audits, inspections, etc.

(1) The "Konzums" Central Union. -- This union is mainly a purchasing joint wholesale society. It supplies to the consumers' societies and to other rural co-operative societies both the various commodities required by the small farmers as well as farm requisites. In addition the "Konzums" has become a joint marketing enterprise for farm products, especially butter. This Union has also erected at Riga two slaughter-houses for the slaughter of pigs for export, one with a capacity for 50,000 pigs per annum, and the other for 120,000. The pigs are not sold on a co-operative basis, the "Konzums" undertaking these sales at its own risk.

A certain diversity of this kind in the operations of the Union is due to the changes that have taken place in the circumstances and composition of the membership. The "Konzums" is the earliest of the central unions of the co-operative societies, and in consequence it has been called upon to satisfy various requirements of a co-operative nature among the rural population.

At the end of 1931 the "Konzums" grouped: 206 consumers' societies (about 80 per cent. of the total of the rural consumers' societies), 57 farming societies, 54 dairying societies (about 12 per cent. of the total) and 20 co-operative societies of various types, making a total of 337 co-operative undertakings.

In 1931 the "Konzums" sold commodities to the value of 22.4 million lats. The turnover decreased by more than 50 per cent. as compared with the previous year.

The following points may be noted in the balance sheet of the "Konzums" for 1931: 1. very small funds of its own (3.8 per cent.), 2. a large sum under heading of borrowers (27 per cent.), 3. very large sums invested in real property and in undertakings.

With such a balance sheet it is clear that the organisation can exist only in periods of economic prosperity. The disastrous fall of the turnover brought about by the general economic crisis and the failure to secure repayment of loans from borrowers involved the "Konzums" at the end of 1931 in financial difficulties. The management of the Union passed into the hands of an administrative body appointed by the creditors. The co-operative societies grouped in the "Konzums" merely retained the management of the propaganda section, and accordingly the Konzums Central Union has become a non-profit

making enterprise, as the direction of the financial operations is assumed by the creditors. The plenary meeting of 1933 resolved that each society should pay 10 centimes per member per annum for the requirements of the propaganda activities of the "Konzums".

(2) Peoples' Bank of Latvia. — This Bank acts as the Central Union of the co-operative credit societies, and is constituted as a limited liability company. Shares may be taken up by the co-operative societies, the municipal and communal administrations and the societies and associations without view to profit. If by some means the bank shares pass into the hands of other persons, these latter have no vote at the shareholders meetings. The maximum voting power of a single society is five votes. On 1 January 1933 the membership of the Peoples' Bank of Latvia was as follows:—

(1) Co-operative societies:—	
(a) credit co-operative societies	371
(b) consumers' co-operative societies	114
(c) other co-operative societies	123
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(2) Municipal and communal administrations organised . .	189
(3) Societies without view to profit (educational and others) .	71
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Total . . .	866
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The Bank is in a prosperous position, and from its foundation in 1920 to the present time it has closed all financial years with a net profit.

The principal operation on the side of assets is that of loans, mainly by the discounting of bills of exchange. On 1 January 1933 the loans represented 67 per cent. of the assets, the balance sheet total being 3 million lats. The loans were distributed as follows according to the principal groups of members:—

(1) to co-operative societies	93,0 % of the total loans
(2) to municipal and communal administrations	4,5 % " " "
(3) to educational societies and associations	2,5 % " " "
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Total . . .	100,0 %
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Among the co-operative societies the first place is occupied by the credit societies, loans to which are 58 per cent. of the total loans.

The following are the main items of the liabilities, expressed in percentages of the aggregate of the total balance sheets:—

shares	23.3 %
reserves and other capital	5.8 %
sundry deposits	34.8 %
sundry borrowings	30.0 %
other liabilities	6.1 %
	<hr/>
Total . . .	100,0 %

The balance sheet totals of the Bank for the last three years have been (in absolute figures) :—

in 1931 (on 1 January)	. . . . .	Lats	3,532,583
1932	»	»	2,977,546
1933	»	»	3,004,647

The present situation of the Bank is sound

(3) Central Union of Dairy Societies of Latvia.— This Union was founded in 1921. Its development was very rapid. At the end of 1921 it grouped 13 dairy societies while in 1932 the number had risen to 259, or 65.9 per cent. of all the dairy societies in activity at the end of 1932. The Central Union of Dairy Societies mainly undertakes the export of butter. In 1932 it was exporting 59.6 per cent. of the whole quantity of butter exported.

The Union possesses a milk transformation depot at Riga which supplies milk and milk products to the town population. In 1932 milk and dairy products were supplied to more than a thousand creameries and shops, to 52 schools, 122 societies and various institutions. In the course of the year in question milk and dairy products were sold to the interior of the country to a value of more than 2 million lats.

In addition the Union undertakes the equipment of dairies, supplies them with the machines and fittings required and also undertakes the supply of concentrated stock feeds.

In general the results of the activity of the Union must be described as good, seeing that each year has closed with a net profit.

In the course of the last three years the balance sheet totals of the Union have been :—

in 1931 (on 1 January)	. . . . .	Lats	4,013,922
1932	»	»	3,564,235
1933	»	»	3,277,800

The financial position of the Union is sound; on the last balance sheet, the owned capital (members' shares, reserve and other capital) represented 44.93 per cent. of the total.

(4) Central Union of Mutual Insurance. — This Union was founded in 1922 by 15 co-operative societies, with a total membership in the following year of 169. At the end of 1932 the Union consisted of 564 co-operative societies, including 363 insurance societies, 76 consumers' societies, 76 dairy societies, 7 central societies and 49 co-operative societies of various types.

The Union effects operations of two different kinds: (a) re-insurance of the risks undertaken by the mutual insurance societies, and (b) direct insurance of risks for other co-operative societies.

According to the nature of the risks insured, the operations of the Union fall under the classes of: fire insurance, farm live stock insurance and life insurance.

There has been a beginning made only in regard to the two latter types of insurance, so that the Union's activity as a whole is in fact represented by the fire insurance operations.

In 1932 the total risks re-insured amounted to 206 million lats as compared with 182 million lats in 1931, while the total direct risks insured in that year amounted to 29 million lats as compared with 20 million in 1931. In the course of the last ten years the value of compensation payments made represented on an average 53 per cent. of the premiums paid. The average rate of premiums fell in 1932 by 27 centimes per 100 lats of risks insured. In the course of the last ten years it has fallen by about 60 per cent. The Union rates are lower than those of the commercial insurance companies.

The balance sheet total of this Union shows a constant tendency to increase:

1923	20,500 lats
1925	143,300 »
1927	274,700 »
1929	503,500 »
1931	600,600 »
1932	605,100 »

On the liabilities side of the last balance sheet the funds of the Union, i. e., capital, special funds and premium reserves, constitute 72.9 per cent. of the balance sheet total. On the side of the assets cash in hand and current account constitute 30.7 per cent. and real property 49.6 per cent. of the total.

The position of the Union is entirely sound, the more so that the Union risks are re-insured in foreign countries.

GENERAL VIEW OF THE POSITION OF AGRICULTURAL CO-OPERATION IN LATVIA.

From the account that has here been given of agricultural co-operation in Latvia it would appear that the development has been on the whole on sound lines, the position of consumers' co-operation in the last few years alone giving rise to anxiety as to its future. This branch of co-operation is however still represented by more than 100 societies in full working, or double the pre-war number, so that it may safely be anticipated that in a not distant future, when the severity of the economic crisis is relaxed, this branch will resume its proper place along with the other branches of agricultural co-operation.

Legislation Regulating the Activity of the Co-operative Societies. — Before the war the foundation and the activity of co-operative societies in Latvia almost entirely depended on the will of the Russian administrative authorities, which greatly militated against the progress of the movement. With the independence of Latvia all legal and administrative impediments disappeared. The juridical position of co-operation is determined in Latvia by: (1) the regulations issued in 1919 on co-operative societies and their unions, and (2) the law relating to the auditing of the accounts of co-operative societies of any kind and of their Unions, passed in 1927.

By the terms of the former measure a co-operative society may be formed by 7 persons, and a union of co-operative societies by three societies. Co-operative societies are registered at the office of the district tribunal, the rules being at the same time deposited by the persons founding the society. The district tribunal has no power to refuse registration except in cases especially defined by the law. The co-operative society must be registered or registration refused within the period of one month from the day on which the rules were deposited. In addition the law contains general and universally recognised provisions in regard to the rights of members of the societies and their duties, the constitution of the capital of the societies (e.g., societies may be formed with or without members' shares, every year at least 20 per cent of the net profit must be paid to the reserve capital), the managing bodies, the distribution of the profits and covering of losses, and liquidation.

By the terms of the law of 1927 every co-operative society is obliged to submit to an audit of accounts, which must take place at least once in every two years, under the general direction of the auditing Council. This Council is attached to the Ministry of Justice and is under the direction of the Minister. It consists of members appointed by the Government and of representatives of the co-operative societies which have auditing rights, these latter being always in the majority. The Central Unions of co-operative societies possess auditing rights as well as the co-operative auditing unions specially founded.

INSURANCE

Agricultural Insurance in relation to International Action.

The question of agricultural insurance has as a rule been considered either incidentally in its relation to general agricultural science or agrarian policy, or else as a specific branch of insurance. It is characteristic of agricultural insurances that on the technical side they are in very simple form, and that in the past, as still also at the present day, the methods of carrying out propaganda and the action taken for the extension of business have been, more strongly than in any other branches of insurance, influenced by considerations of policy — in this case either general or purely agricultural policy. Herein lies the explanation of the fact that technical considerations have been reduced to a minimum, and also that the first care was to adapt premiums to the paying capacity and income of the farmer. In the case of *Hail Insurance*, the attempt to make an exact calculation of the annual premiums has encountered the difficulty of the varying character of the losses sustained over a series of favourable and unfavourable years. Similarly for *Live stock Insurance*, the possibility of actuarial calculation of the amount of the premium has been seriously compromised by the part played personally by the individual owner in determining the extent of the risk, even in countries well provided with sound veterinary service and an extensive machinery for dealing with epidemic diseases.

In most countries agricultural insurance was already in vogue before the development of modern technique and the growth of business had brought about

a true science of insurance. It is a matter of common knowledge, for example, that live stock insurance is one of the oldest types known. In the field of insurance, the agricultural branch has always occupied a place apart, because, as already stated, the principles on which it is based are not completely in accord with the rules of scientific insurance. In many countries too, it takes a form very different from normal insurance business. It would however be a mistake to say that intrinsically agricultural insurance does not lend itself to an international examination, or organisation, of its principles. Such a statement would be true only in so far as such examination, or organisation, must make its starting point the interests and requirements of agriculture itself and must not be undertaken from the standpoint of scientific insurance. This is a subject which the International Institute of Agriculture might handle very properly and to great advantage.

It is now proposed to discuss hail and live stock insurance, treating these as two separate and distinct branches.

(A) HAIL INSURANCE.

Hail Insurance was instituted by farmers for farmers. It is true alike of the early Scottish Friendly Societies, of the "Braunschweiger Schlossenscha-denassukuranz" of 1791 and of the French "Société d'assurances reciproques" that the co-operative idea of mutual assistance among persons belonging to the same calling inspired the foundation of the first hail insurance institutions, which were closely adapted in rules and general organisation to the actual conditions of the farming profession.

In Prussia, as in France and Italy, and with a similar motive, *viz.*, the desire to assist agriculture, the authorities did not hesitate to make contributions from State funds, so as to guarantee to farmers the benefits of an insurance of their crops against hail damage, in return for yearly payments of nearly equal sums. Although such efforts did not always meet with lasting success, there has been none the less everywhere a ready recognition on the part of Governments of the advantages of hail insurance, as affording continuous security for farming operations. Moreover as the farmers both felt the need of and desired this form of insurance, they themselves made constant efforts to initiate the necessary institutions, or, if they were without the resources or the adequate technical organisation for the purpose, they urged the State authorities to pass the required measures. From the fact that hail insurance is usually organised in all countries on a mutual basis or by public utility undertakings, its prevailing character is that of a non-profit-making enterprise. Even the competing commercial insurance companies take into account this special character in their methods of business, and in this branch of their operations postpone the consideration of their own profits to that of the satisfaction of the needs of the farmers, frequently continuing operations in spite of very considerable capital losses.

Since returns from agriculture in all countries make it essential that premiums in this branch of insurance be kept decidedly low, the funds available are insufficient for proper investigation of the causes of hail damage.

For this reason it can readily be understood that, although there has been a series of particularly disastrous seasons, very little progress has been made in most countries in the knowledge of the origin and course of hail storms. Moreover since hail takes no count of political frontiers, there is scope and in fact an urgent need for international investigation into the causes of hail. Some idea of what can be accomplished in this field may be gained from the comprehensive and admirably designed researches of the National Meteorological Institute of Poland at Warsaw (1), which endeavours to make scientific and systematic observations, with the collaboration of all interested parties, of the routes followed by hailstorms, their distribution over the various districts, their severity and frequency. In Prussia also observations are taken at the meteorological stations of the dates and intensity of hail precipitations, and are forwarded to the Central Meteorological Institute, but unfortunately for some decades past there has been no elaboration of the data so supplied. Some preliminary work has thus been accomplished (2), and furthermore for some years past the German hail insurance societies have added the dates of the occurrence of the damage to their register of compensation payments effected with a view to a later utilisation of the material, though up to the present no tangible results have been reached.

The statistics established in the United States of America in regard to the damage done to crops by various weather influences, represent rather a registration than an explanation of the facts. More is to be learned on the subject of the effects of hail from the excellent annual reports of the *Schweizerische Hagelversicherungsgesellschaft* in Zurich and from some publications in the Balkan countries (3). A useful summary, although rather from the standpoint of the technique of insurance, is given by KOLAR (4).

It would be of interest and value to all countries that suffer from hailstorms to gain information as to the origin and course of the storms and as to the influence exercised on the formation of hail by forests, waters, mountain ranges, etc.; and also to learn the relation which exists between hail and the level of subsoil waters. Special importance also attaches to an investigation as to the extent to which electric transmitters, wireless installations, and, generally speaking the increase in utilisation of energy derived from the atmosphere, may tend to promote the occurrence of hail. The solution of this problem is of considerable importance as regards the establishment of market gardens in the neighbourhood of large towns or of works using high tension current. In Germany it has been possible to observe over a period of years a marked increase in the occurrence of hail, and an aggravation of hail damage experienced in garden layouts exposed to electric current.

(1) R. GUMINSKI, Grady, W. R. 1930 *Polisce*, Warszawa 1930; also for 1931.

(2) In the Report of the Head Office for Plant Protection in Landberg (Warthe) for 1927-28 on hail damage in North Germany 1927-28.

(3) Vlaicu, Zonale Grindinoase din Nord-Vestul Romaniei in 1928 și 1929 *Annuarul* 1929, Bucuresti 1930, and Dwaadestwo Dischnik of the Bulgarian Central Co-operative Bank (1911-1930) Sofia 1931.

(4) Zemědělské Pojiště ní nás za Hranicenní. Prague 1930.

Much could be learnt as to the most suitable types of cultivation in districts particularly exposed to hail risks from a systematic enquiry into the true nature of these risks. From time to time doubts have been expressed on the advisability of growing crops specially liable to damage by hail in zones regularly exposed to hail storms, and it is emphasised that it is the common interest to effect an adaptation of cultivation to climate in such zones; as otherwise the claim for insurance protection is made at the expense of the whole community. Up to the present however no such request for changes in cultivation has ever been made in the areas affected.

Information on the relation between the period of growth and the observed dates (approximate) at which the hail storms occur in the different countries would also be of great value. It will no doubt be possible to achieve in certain districts, by means of selection of varieties, a shortened ripening period and therewith a time limit to the risk of hail damage. It would be of interest to learn how far the increasing use of harvesting machinery has had a favourable effect on the hail risk or may modify it still further.

If an intensive, uniform and lasting collaboration between all the countries concerned is adopted, it will become possible to investigate the causes of formation of hail and its relation with cosmic changes, and to make a knowledge of these causes accessible to farmers. In view however of the present necessity for economy in all scientific research work, the initiative for work of so wide a scope must come from the farmers themselves as the class likely to profit by the results.

Passing on from the study of the phenomenon of hail to that of hail insurance, another subject on which exchange of experience might be very useful is that of the principles underlying the fixing of premiums, or variation of premium rates according to risk. It is well known that in most countries the premium is variously calculated according to the frequency of hail storms in the particular locality, and also according to the extent to which any particular crop is liable to hail damage. It does not appear, however, that there are any uniform and exact principles for such a fixing of rates although, in view of the peculiarly uniform nature of the object insured, these should undoubtedly exist.

How in fact is the basic local premium calculated in the different countries? What are the fundamental principles on which the hail insurance companies work? In nearly all countries there may be found, for long periods, sometimes even for more than a century, an exact record of the losses covered and occurring in the various local administrative areas. Nor does each undertaking merely confine these statistics to its own transactions, but results are also exchanged with rival companies, thus making them available for the purposes of hail insurance business in general. The information which the hail insurance undertakings do not possess however is that relating to the losses experienced by the non-insured farmers and their extent. Attempts have been made in isolated cases to establish official statistics in reference to these uninsured losses, but such data are not as a rule trustworthy and in any case are very scanty.

Rating of the separate risks may be based on a number of different considerations. In the first place the risk may be considered in itself. In this case

provision should be made for an actual cover from the premiums paid of any losses that may occur. This policy would involve investigations extending over a prolonged period, and trustworthy results would be obtained only if the risk had remained continuously insured. Such a consideration of the individual risk is not however compatible with the compilation of statistics, on account of, *inter alia*, the changes that may take place in the different areas under cultivation.

Another possible method would be to group the risks by communes and large estates, and to establish the basic premiums for these risks on the total losses sustained by all the interested parties. But since the number of persons insured in these minor administrative areas is by no means of necessity large, a premium tariff based on the compensation requirements of each area would in practice very nearly correspond with a separate estimate of each individual risk. The working out of a general premium tariff is facilitated only when it takes into account not such small areas as the commune, but the larger area of which it forms a part, such as the canton, department, etc. which in the course of time is bound to find some method of averaging risks.

Even this method of tariff-fixing however will tend to fail in the majority of countries, since cantons and departments require and always will require some supplementing from State funds. Such, for example, is the case in the first place in countries where hail risks are slight and where the premiums, originally fixed at a low rate in normal years, are insufficient, even after a long period, adequately to meet the high claims of particular areas paid in certain years during which severe storms have occurred. The same is also true for countries where the average hail risks are considerable. Here hail policies are chiefly subscribed in the areas most exposed to the risk, which look to the whole country for the settlement of their claims. The calculation of the basis premium for the district, commune or large estate naturally does not exclude an increase or reduction of their respective premiums for the individual risk.

Another possible way of arriving at a premium tariff may arise in the case of a country in which there are insurance undertakings operating only within the country. The point of departure would be the average of the sums required for meeting claims taken over a fixed period and an average premium to cover the average calls as a whole, plus expenses of administration and the risks of exceptional damage in particular years. The tariff for the different communes and estates could be fixed by taking into account the relation to the total requirements of the country in question. In countries where, owing to the existence of a State system or monopoly companies, combined with compulsory insurance, the totality of risks can be taken into account, it is particularly easy to carry out a continuous adaptation of the figures to the latest results in the years on which the tariff is based.

A knowledge of the principles on which the premium rates of the insurance societies in their own country are based would be of great value to the farmers, as enabling them to make comparisons with the rates in other countries and to use their influence for arriving at a general uniformity. In certain countries which already jointly possess hail insurance bureaux, uniformity in the princi-

ples underlying premium tariffs is already well advanced and in the interests of the farming class it is much to be hoped that such uniformity may become universal. The farmer is naturally interested that the paying out capacity of his insurance society is not weakened by the competition of different kinds of societies, if only to be able to feel assured that any claims of his own will be met in full. It is not intended to exclude competition altogether but merely to ensure that it serves a useful purpose. A sufficient field for competition is always left in the differences between conditions of insurance, the reductions, rebates granted in favourable seasons and concessions as to methods of paying premiums. If there is no uniform system in premium tariffs and if the premium required is driven by competing companies below the limit of a proper actuarial calculation, after a series of years of frequent and destructive hailstorms the effect will be felt by the farmer. It will then become necessary to raise the premiums beyond his capacity to pay, or else the insurance companies will no longer do business in the areas where the risk is greatest, and the result may be an insufficiency of insurance facilities as the remaining societies will no longer be able to cover the full risks of certain regions.

There is a great risk of arriving at an impracticable premium tariff on the part of mutual insurance societies, which obtain their contributions under the form of call premiums and subsequent payments, but fix their premium tariffs on the amount of call premiums alone without reference to the total contributions and accordingly without considering the further payments that may be required. Such a system is absolutely unsuitable for any kind of agricultural insurance, being neither serviceable nor convenient, and designed simply with a view to increased profits. In such a branch of insurance as hail insurance, competition should have nothing to do with any kind of premium tariff not based on the realities of the case, as otherwise it can be carried out only at the expense of the farmers themselves, who in most countries are in no position to meet any unproductive expenditure. Competition should rather on the other hand have regard to the reduction of administration costs to a minimum, since agriculture can only find the guarantee for the safeguarding of its interests when expenses are kept at the lowest possible limit. A particularly valuable premium tariff is offered to its clients by the "Gazdak" Society in Hungary, in which every year there is set out a detailed tariff arranged both by localities and according to a system of classification of crops.

It should be added for the sake of completeness that in certain countries the idea of local adaptation of the premium tariff is set aside altogether, and the basic premium is calculated on the area of the farm. It is unnecessary to explain in detail that this system involves a serious injustice for farms situated in districts where hail risks are slight. It would however be useful to know whether in countries where such a system obtains, hail insurance makes regular progress, or whether it is not rather the case that this system tends to encourage the speculative instincts of the farmers, who will be inclined to insure their crops for a short period, and only after having experienced losses through hail, whereas after a period of freedom from such damage they will not renew their policies. Even though in these countries there may be differential rates for different

kinds of crops, yet even so these rates will not suffice to cover completely the individual risks

An international exchange of views and experiences would again be highly valuable in dealing with the question of the adaptation of the premium in hail insurance to the degree to which different crops are liable to damage by hail. Any student of the development of the technical side of hail insurance from its earliest beginnings will be struck by the change that has come over the attitude towards the liability of different crops to hail risks and particularly by the difference in the treatment of certain crops, such as roots, flax and hemp, and certain cereals such as oats. There is no longer any uniformity in the classification of crops, and while for hail insurance purposes certain countries group all cereals alike in a single class, there are others that adopt quite another method. How long a time, for example, has it taken Germany to become convinced that the peculiar liability of oats to hail damage justifies its inclusion in a special category. The competition between the separate insurance undertakings lasting over many decades has been the real obstacle preventing a proper classification of the different kinds of crops. There are probably few hail insurance companies that are really capable of checking the accuracy of their classification of field crops by means of a long series of data derived from their experience. At the same time it would be greatly to the advantage of agriculture if, in all countries, some at least of the chief companies could be induced to institute a regular checking of the scales adopted for field crops which are now somewhat arbitrary. It is however essential to take into account the relative importance of the different varieties, for it may happen that liability to hail damage may decrease in the course of years, thanks to the preference given to the more resistant varieties (1).

A further consideration is the *diversity of the conditions of insurance as regards various crops*. In this respect also from the farmers' point of view a certain unification in the principles of the insurance contract seems desirable. It is difficult to understand the reason for the diversity of the terms for the beginning and the end of the cover. As regards any extension or limitation of liability for the insurance of the different crops, it is likewise to the interest of farmers, who in this matter should have a decisive voice, that there should be the possibility of differentiating the individual crop rates, while at the same time respecting the exigencies of insurance technique. It would also be highly desirable to have a detailed report upon the relation between straw and grain value in the various cereals and field crops, and such a study would help to settle an old controversy between the insured persons and the insurance company. In this connection, however, the principles only for the determination of the relation between these values can be established internationally while the data would have to be calculated separately in the individual countries.

This last question brings up a further point. Up to the present the general problem of *hail insurance* has never been considered from the point of view of *farm finance*. How far can production and marketing support the expense of

(1) ROHRBECK - SCHLUMBERGER: Die Schätzungsgrundlagen bei Hagelschäden p. 13.

hail insurance? Is it possible to pass on the charge to the purchaser of the crop? How far again is it possible to pass on the cost of the premium, if there are taken into account the fertility of the soil, the extent to which the area is liable to the risk and whether the crop is sold in the open market or under the conditions of a forced sale? What is the true bearing of hail insurance on the soundness of the farm credit, and in this connection can it properly be met even if it is doubtful whether the insured person can pass it on to other parties?

What is the economic advantage of a quick settlement of claims by the insurance company to the farmer who as the result of the hail damage may effect a saving in respect of harvesting, storing, threshing, transport and marketing of the crops? Do such financial advantages justify a deduction from the payment of the claim such as is customary in certain countries? Would it not be feasible to check the accuracy of the farmer's valuation by taking threshing samples annually? It might be expected that such a system of tests would tend to increase the confidence of the farmers who are distrustful of insurance, and render them more disposed to take out policies.

It is well known that in 1932 a dispute arose between the insurance undertakings and the supervising authorities in regard to the introduction of the so-called non-liability clause, which has been customary for some years past in a certain number of countries. No investigation of the influence of this non-liability clause on farm finance has yet been carried out. It is of course indisputable that the burden of the hail insurance premium where there is an obligatory non-liability clause *without* reduction of premium, is much greater than where there is such reduction, especially in neighbourhoods where the average hail risk is slight. It is for this reason that when the non-liability clause was finally adopted in Germany, it was combined with a reduction in the premium. The extent of this reduction is calculated however at present from the standpoint of technical insurance only, and the non-liability clause itself has not yet been investigated from the standpoint of the farm finance.

The problems for scientific investigation already indicated are very varied, nor are they limited to the questions that have been briefly discussed here. The solution of these problems lies in the sphere of the compulsory accountancy prescribed for farm undertakings, and consequently a uniform solution for all countries cannot be found. The mere enumeration of these problems, which, seeing that hail insurance has now existed for more than a century, ought no longer to be problems, shows how little up to the present the whole problem of hail insurance has been considered from the point of view of farm economy, in other words, of the capacity of the farmer, in view of present day prices and wages, to meet these insurance charges. The result of the investigation from this point of view *either* will be decisive for the future of hail insurance in so far as its further extension and development will depend on such investigation, *or* will have an influence on the formation of cereal prices. In any case, agriculture is deeply concerned in the settlement of these questions, and such settlement is essential to an intelligent, confident and active collaboration between the farmer and the insurance institutions established for his benefit.

In this way there will also be provided a means of examining into the financial situation of the hail insurance undertakings. For many of these in all parts of the world and particularly for the larger institutions, costs of administration at the present time are extremely high. In countries where distances are great, means of communication inadequate and costs of expert inspection very heavy, the high cost of administration can be reduced only by degrees as the economic development of the country proceeds. In other countries, the high costs are due at least in part to faulty administrative methods. A thorough examination of these administrative questions will facilitate a calculation of the maximum proportion of these costs that can be borne by agriculture. The farmer, it is true, in his present critical position tends to consider any charges of the kind as unproductive expenditure. In the last resort the question is one of farm organisation. It is accordingly not surprising that in many countries the question has been raised recently whether in this branch of insurance an introduction of compulsory insurance might not reduce the high costs connected with obtaining new business and the other administration expenses of the insurance companies, and thereby improve and render more uniform the settlement of claims. In this connection it may be considered advisable to include hail insurance institutions in the occupational organisation of agriculture.

Such questions demand very close examination, since a complete transformation of existing institutions is involved, such reform being especially indicated where the failure to adopt new methods may well lead to a shortage in insurance facilities.

An enquiry into the costs of administration of hail insurance companies of the different countries and an international pronouncement as to the extent to which such costs may properly be assigned to agriculture, would be of great value, and would act as a stimulus to the reform of methods of insurance business in quarters where previously this question has not received the attention it merits.

Still another question appropriate for international exchange of experience is the valuation of hail damage, a far-reaching question and only within the last twenty years studied in detail and on scientific lines. It is well known that in Germany the *Biologische Reichsanstalt* has arranged for a report on some detailed investigations on the effect of hail damage on plant growth and crop yield. No special attention has been paid to these results, and no other scientific institutions have published parallel investigations. An extension of such enquiries would supply more accurate information on certain problems, such as the increased liability of plants that have suffered hail damage to disease, the importance of selection of varieties resistant to hail damage, the possibility of recovery from severe injury at an early stage in growth if subsequent climatic conditions are favourable, the identification of hail damage as distinguished from other possible forms of damage.

The results of valuation of hail damage should be checked by the farmers themselves in the way already mentioned, *viz.*, by means of samples taken at threshing time. In particular, cases of slight and moderate damage should be so checked. It is not improbable that there may well have been in many cases

fundamental overvaluation of damage, thereby justifying the introduction of a non-liability clause in countries where such a clause is not yet in force. Once again, economic enquiries would usefully supplement those of a purely agricultural character.

In countries in which the management of hail insurance is purely technical and exercised without reference to agricultural bodies it would appear to be too one-sided and too remote from the real needs of agriculture for any chance of development of such a kind as would assist production and serve the farmer's true interests. A closer connection of hail insurance with agricultural institutions, whether State or co-operative in character, would be of advantage. Such closer union would make it more practicable for the International Institute of Agriculture to make proposals and to carry out enquiries having reference not only to the purely technical aspect of hail insurance but also to its economic and agricultural importance.

(B) LIVE STOCK INSURANCE.

Whereas the phenomenon of hail is independent of human action and in consequence the technique of hail insurance is essentially determined by objective considerations, the effective operation of live stock insurance depends largely on the attitude of the stock owners, and on the possibility of reducing to a minimum the claims into which a subjective element of any kind enters. Such claims include not only attempts, due to financial embarrassment, to defraud the insurance companies, but also defects in the veterinary inspection systems of national governments. It is obvious that live stock insurance cannot be successfully operated, where it is possible for diseases of stock to be introduced and to spread through a whole country. The primary condition of sound live stock insurance is that public authorities and private individuals alike exercise a proper control over epidemic diseases.

An international enquiry into systems of live stock insurance throughout the world must accordingly start from a critical examination of the veterinary control of diseases of stock. The development of this control is essential to the general purposes of agricultural policy in all countries, and also acts as an effective means of maintaining capital engaged in farm undertakings. This dependence of live stock insurance on State institutions of veterinary inspection adds to the difficulty of any international comparison of live stock insurance institutions in the various countries. The possibility of such an enquiry is not however thereby entirely precluded. It would of course be a mistake to attempt to regulate live stock insurance from the farming standpoint only, since this would mean neglecting the protection of the interests of the non-agricultural owners of stock. This latter consideration again renders difficult the technical organisation of insurance.

It has been the experience in every country in which this branch of insurance is practised, that it is impossible to dispense with definite control of rural owners of live stock in regard to the care and to the marketing of their animals. Such control is effectively exercised through small local unions,

wherein the farm management of each individual owner comes naturally under the observation of other owners. There is usually a large number of local associations of this type, the only drawback being that they do not possess sufficient funds for the payment of any heavy claims for compensation that may arise. Re-insurance has been tried as a means of remedying this weakness, but the tendency is for these small associations to group only farms of the same type. The inclusion of large estates and public lands in such associations is inadvisable on account of the non-comparable nature of the risks, apart from the consideration that the widely differing economic interests of farms would render any insurance operations very difficult. The position of stock owners who are engaged in some urban occupation is quite different from that of the rural stock owners. Their predominantly commercial outlook makes them careful in the handling of the animals that constitute their working capital. The main preoccupation of the insurance companies, in respect of this class of owners, is the likelihood that premature mortality may result from intensive and continued working of the animals for commercial or industrial purposes. Grouping of such risks in local urban associations would be more practicable than a similar local grouping of the rural stock owners. The problem of the most effective organisation of live stock insurance has not yet been satisfactorily solved, and it would be highly desirable to undertake an exchange of experience as to partial solutions of any of the points indicated reached in various countries. It might thus be possible to arrive at a more uniform and a more permanent structure of live stock insurance.

A feature in live stock insurance is the considerable number of changes in ownership within different organisations. As this fact greatly increases the costs of insurance business, it militates against extension to uninsured areas.

It may be further noted that the study of live stock insurance from the point of view of farm finance is still but little developed. The opinion is often expressed by large farmers that live stock insurance is a matter for small farms only, an opinion however which has not so far been put to the test.

The combination of long and short term risks in live stock insurance introduces a complication into the operations taken as a whole in respect of the compensation claims. Live stock mortality insurance is properly a long term insurance only. It is mainly conducted by a mutual basis, the associations employing a system of call premiums and supplementary payments as a means of assuring the required total of contributions. The short term insurances that accompany the main insurance — for example, those against thefts of grazing stock, transport and exhibition risks, operation or gestation risks, etc. — are not adapted to such a system, and are for the most part arranged on the basis of fixed premiums. The danger for the business of live stock insurance, as a whole, is that the short term insurances will increase disproportionately, and that if a number of these claims occur, the members of the mutual associations may become liable for risks of persons who are no longer members. Such liability is clearly more than should be expected of the already heavily overburdened farming class. The determination of a due proportion between long and short term insurances is much to be desired. In this connection, it might be possible to consider,

whether as regards certain short term insurances, such as, *e. g.*, insurance against fire risks, transport risks, etc., international model contracts could be prepared, designed to prevent undercutting premiums on the international market

It will be recognised that in live stock, as in hail, insurance the administrative costs of the insurance companies are a matter of special interest to farmers. A collaboration between insuring institutions in the different countries would probably contribute to a reduction of these costs, and in the interests of agriculture it would be desirable that on the international side attention should be given to this matter. In so far as the control exercised over insured persons for the prevention of unjustified claims tends to swell costs, the question might also be raised whether extension of owner liability in cases of loss or damage would tend to equalise matters. This problem, however, can find a solution only in relation to the market prices of live stock. Prevailing low prices in a number of countries militate against the general practice of insuring

(C) INTERNATIONAL RE-INSURANCE OF AGRICULTURAL INSURANCES

Whenever hail insurance companies experience disastrous seasons or live stock insurance operations are hampered by business considerations, the question of international reinsurance of these branches is seriously debated. But invariably negotiations break down when the interested parties come together to discuss technical conditions.

The difficulties involved in international settlement of claims are due to the following causes:—

(1) The marked difference in the extent to which hail insurance is adopted by the farming class in the different countries

In certain countries it is observed that as a rule only the districts especially liable to hail seek insurance protection. The introduction of general insurance throughout the country is difficult to effect, although it is well known that no districts are completely free from hail risk, so that even those where hail insurance is generally considered unnecessary sometimes suffer. The model pioneer activity of the Italian and German companies for the extension of hail insurance will have to be imitated by other countries if they are to stand on an equal footing as to settlement of claims internationally.

(2) The varying average yield capacity of soils. — The losses experienced in bad seasons by countries with high average unitary yields commanding good prices would entail excessive sacrifices on countries with lower average yields. On their side these latter countries will always have less interest in international settlement of claims, except in so far as they are not driven to it by want of uniformity in the insurance of their crops and by the considerations referred to under (1).

(3) Differences between principles of contracts in the various countries are so great that it is impossible to guarantee such equivalence of mutual conditions of contracts as is essential in international relations.

As a result of the course taken by the development of agriculture and its close connection with local and regional features, a great diversity in the terms of

farming agreements has been preserved, in many cases even within the same country, so that standardisation would be necessary to bring about the clearness and conciseness required for present day farming. This need for standardisation of agreements has however not yet found expression.

(4) International handling of claims should not be limited to Europe, but should also include other continents, especially America.

Efforts made to arrive at an international understanding respecting hail insurance have been so far confined to Central Europe. It was found that hail damage for certain crops occurred in all the countries concerned alike; hence in especially bad seasons it would have been impossible to arrive at satisfactory settlements, while in other years countries not as a rule so seriously affected might have to bear the additional burden of contributions for the relief of the others.

The inclusions of the countries of North and South America with their completely different climatic conditions would, taking into account the causes referred to under (1), (2) and (3), in itself bring about a change in the outlook. Up to the present no definite enquiry has been made as to this point and the International Institute of Agriculture would confer a benefit by undertaking an investigation of the kind.

In live stock insurance, international settlement of claims is of interest only in connection with short term business. Long term insurance of live stock mortality is adequately provided by national enterprise, when prices are normal and public veterinary organisation is sound. International handling of claims is most required in the case of race horses, the English market showing a remarkable absorption capacity in this respect.

For certain types of short term live stock insurance, international settlement of claims is both possible and desirable, *e. g.*, insurance for transport or for exhibition, provided that the norm conditions discussed under heading *B. guarantee* the uniformity of the principles of contract. Such insurances as those against thefts of grazing stock, insurance for the gestation period, etc., do not lend themselves in the same way to international handling, because the risks vary greatly in frequency in accordance with the personal characteristics of the owner

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[A detailed account of the first part of the foregoing series of publications together with the Report of the Bureau for Study of farming conditions in the Free State of Saxony was given in an earlier number of this Review (1932, No 7). This included a brief summary of the organisation and functions of the Bureau and of the substance and significance of the previous Reports, constituting essentially a statistical elaboration and utilisation of the farm accountancy results of farming in Saxony. The second Report confirms fully the view previously expressed, that with the institution and activity of the Bureau an important step forward had been taken in investigation of the agricultural situation and in the correct presentation thereof. In view of the lively interest evoked by the first Report it is easily intelligible that the Bureau for the years 1929-30 and 1930-31 was enabled to gain the support of a much larger number of farm accountancy offices than in previous years. The methods of elaborating the results are naturally the same as before, and the same detailed classification is adopted, so that a very valuable insight is gained into the development over the five year period of the many aspects of the agriculture of the Free State of Saxony].

GAMMANS L. D. Report on Co-operation in India and Europe. Singapore, Government Printing Office 1933, pp. 314.

[This collection of reports on co-operation in India and in certain countries of Europe represents the result of a six months' study tour undertaken in 1930 by the writer, the Assistant Director of Co-operative Societies in Malaya, on the instruction of his Government. As remarked in the preface, Malaya has come somewhat late into the field in co-operative organisation, and should accordingly be ready to take all advantage of the experience gained and the errors made by other countries.

The book falls into three parts. In Part I, Co-operation in India, the writer sets out the results of his enquiries into co-operative organisation, rural and urban, in five of the nine major provinces of British India, *vis.*, Madras, Bengal, the United Provinces, the Punjab and Bombay, and also in the Indian State of Hyderabad. In Part II the workings of the co-operative systems in Denmark, Holland, Germany, Czechoslovakia, Great Britain, the Irish Free State and Ulster are similarly presented. Part III consists of conclusions and recommendations for local application in Malaya, in accordance with the purposes and objects of the studytour.

The whole treatment is exceedingly clear, and the sectional arrangement followed throughout makes the book easy to consult and facilitates comparison of the working, as observed, of different types of co-operative banks and societies in the different countries under review.

For many the special interest of the book will lie in the writer's observations and discussion of the value of rural reconstruction societies and other organisations for similar ends. As he points out, the view originally held was that the credit society was the first link in the co-operative chain, and there was much to support this view in so far as the credit society is the obvious instrument for relieving the dead weight of debt which must act as a bar to progress of any kind. The lapse of time, however, has shown that cheap credit is not a wholly unmixed advantage, that the habit of continual borrowing is not necessarily eradicated by the fact of membership of a society, and that overdue loans may rise to a figure that will undermine the stability of the whole movement. "The members of credit co-operative societies have not always known how to use the credit which has been provided for them. What has been really lacking is the re-orientation of fundamental ideas... It is for this

reason that many experienced co-operators hold the view that the Better Living Society which aims at inculcating new ideas and awakening men's thoughts to new possibilities should precede or at any rate accompany the credit society." This quotation may in fact be said to be the key-note of the Report.

Better Living, or Rural Reconstruction, societies, will naturally vary in constitution in accordance with the customs, traditions and characteristics of the people among whom they are formed. As the writer observes, in Great Britain where co-operation is but little developed, the existing fully recognised need for rural betterment has been met by the formation in recent years of Rural Community Councils, elected in the villages, although these are not co-operative societies their work actually approximates closely, *mutatis mutandis*, to that undertaken by the Rural Reconstruction and Better Living societies of the United Provinces or the Punjab or by the Public Health societies of Bengal, all of which are on a co-operative basis. The scope for activities is undoubtedly wide. rural sanitation generally, including where required anti-malarial work, infant and maternity welfare, adult education both cultural and technical, provision of playing fields and village halls with encouragement of recreative activities, promotion of village industries and crafts, experimental work in horticulture and animal husbandry with encouragement of market gardening and poultry keeping, all these represent some of the directions in which progress in better living may be sought after through such organisations in all countries.

On the negative side, discouragement of unnecessary expenditure on festivals and the like is undoubtedly of benefit when not carried to unsocial lengths.

A fact that is especially noted by Mr. Gammans is that it has been found that this work of rural reconstruction or "uplift" tends to take on a more permanent character if progress is made step by step within the capabilities of the people concerned to understand what is being done, and when as much use as possible is made of the villagers' own powers of initiative and direction and of their special capacities of any kind.

Turning to the application of the enquiry to Malayan conditions it may almost be said that Malaya has suffered from being too prosperous. The immensely valuable export trade following on the rapid development of tin and rubber has brought in a revenue to the State enabling it to perform many social services that in other countries are left to private enterprise or not performed. One consequence of this has been that a natural want of enterprise on the part of the Malay population has been fostered. Since it is unlikely that the finances of the country will permit of the maintenance of this high standard of administration, it is the more desirable to use every effort for the encouragement of communal enterprise.

So far as the Malay population is concerned, development of rural co-operation has been slow. Two types of societies are actually in existence, the rural credit society providing seasonal credit almost exclusively for rice growers, and a very small number of co-operative rubber marketing societies mainly experimental in character. As regards the credit societies it is found that there is much borrowing for unproductive expenditure and a high percentage of overdue loans. No credit societies have been formed among the Malay peasant rubber growers, although roughly 45 per cent. of the rubber exported from Malaya is produced on small holdings. The reason for the absence of this form of co-operation lies in the fact that rubber yields are continuous and hence there is no need for seasonal credit, and also that, until recently, the returns have been so easily lucrative that there were no credit needs of any kind. The general introduction of co-operative marketing — probably at first under a certain guidance from small State trading factories — would undoubtedly

be of benefit to the Malay rubber growers, and the co-operative societies so formed might be used, as in other countries, as channels for the imparting of information on cultural and technical improvements

More use might be made of the rice-growers' credit societies for this purpose of imparting agricultural information.

Co-operation for the encouragement of poultry raising among the rayats as a means of supplementing the present inadequate returns from rubber is advocated by the writer.

There is every evidence that the indebtedness of the Malay *rayat* is very heavy, and, as with most Asiatic peasantries, the debt is almost universally due to borrowing for unproductive expenditure as well as to general backward conditions. The basic solution is, in the writer's opinion as in that of many experienced co-operators, a change in habits of living and a more enlightened outlook, and it is for this reason that the importance is stressed in this Report of the Better Living Society as a necessary preliminary or accompaniment to the rural credit society. Mr Gammans adds that the success in Malaya of the organisation of these societies among the Malay peasants will depend upon the encouragement given by the Rulers and leaders of the people. One Better Living society has already been registered, and its efforts are being watched with keen interest by the educated section of the Malay population].

C. H.

STRICKLAND C. F. (C. I. E.): Co-operation for Africa. With an Introduction by Lord Lugard. London, Oxford University Press, 1933 (pp. XIII-158).

[The object, as stated by the writer, of this small but pithy volume, is « to examine the practicability for Africans, whether in the tribal or detribalised state, of such (co-operative) institutions as have spread in recent years through Asia ».

Mr Strickland was for 12 years, up to 1927, Registrar of Co-operative Societies in the Punjab, in that capacity also acting as Registrar of the North-West Frontier Province and of Dehli Province and as adviser for co-operation in Ajmer-Merwara, dealing in all with some 20,000 societies. From personal investigation he has a knowledge of the co-operative systems adopted by ten European countries, and since his retirement has visited — usually in an advisory capacity — Egypt, Malaya, Palestine, Zanzibar and Tanganyika. In an early chapter, entitled « What Co-operation has Done », this experience is summarised in the remark: " It is impossible for any man who has seen co-operation at work in one country after another, all completely different, but each discovering the right way of applying co-operative methods to its own needs, to believe that Africans are so different that an agency prized and utilised by the rest of the world is useless to them and cannot be adjusted to their purposes ".

The book is primarily addressed to administrators in Africa, the writer " having only a modest acquaintance with Africa at first hand " does not claim to be able to prescribe the exact ways in which co-operation may be helpful to the African. The problem has to be worked out by those who combine a real and adequate knowledge of co-operation with a knowledge of African conditions. From observation and general considerations he does however stress an all-important fact, *viz.*, that under modern conditions of communications and diffusion of ideas the " tempo " of the growth of the African mind is inevitably far more rapid than that of any change that took place in the Indian outlook during the XIXth century, or even than that of development in Japan. Hence there is the more need for long-sighted guidance.

The succeeding chapter on "African Society" treats more particularly of the society which, while no longer savage, remains wholly or partially tribal, and is at the same time advancing and acquiring new ideas and new needs. Here the question arises of the effective organisation of the resulting new activities. "The accepted policy in the British and some other territories in Africa is to guide the people forward as Africans under the leadership of their recognised chiefs and elders, rather than to dissolve their social institutions and convert the African into a pseudo-European". This is undoubtedly the sound principle, but if carried out literally it can only end in overburdening the native authorities and bringing about a standstill of the social advance. There are obviously many activities, agricultural and others, which interest only a section of the community and which should therefore be organised by voluntary groups of those interested. With proper guidance such groups will develop into self-governing co-operative societies, under the leadership, as elsewhere invariably happens, of intelligent men not possessing the status of chiefs, nor indeed always even literate, but vigorous and shrewd. Or the help of the Europeanised educated African may equally be enlisted. In this way "there should be, as African society advances, a growing number of associations for specific objects, operating in connection with the local authority, but not directly operated by it and in particular not involving that authority in the daily conduct of either economic business or social propaganda".

As regards legal control of the co-operative system, Mr. Strickland advocates for Africa, *i. e.* Africa of the Africans, the form of co-operative law under which a Registrar is appointed and assigned powers of refusing registration — for stated reasons — together with full powers of inspection and of arranging for the audit — by approved auditors — of every society, also of cancellation or liquidation of societies that may have deteriorated. This is the form existing in India, and in his opinion no other type of co-operative law, however well suited to more advanced populations, is suited to a backward population, unable to study co-operative literature and unfamiliar with co-operative principles. It is on these lines that the Co-operative Societies' Ordinance of Tanganyika (No. 7 of 1932) has been framed.

An account is given in a separate chapter of the co-operative organisation already existing in certain African areas. Excluding the co-operative societies of French North Africa in which the white French element is preponderant, co-operative organisation of one or another kind among Africans is found already existing in Egypt, West Africa, Tanganyika and in the Transkei Territories (Native Reserve) of the Union of South Africa. An interesting account is given of Egyptian co-operation which is organised mainly for credit, but as the writer says the mentality and the economic and social state of the Egyptian peasant are semi-Asiatic rather than African strictly. West Africa came early under European influence and co-operation has developed among the native growers for the preparation and sale of cacao both in the Gold Coast and in Nigeria. The Gold Coast Co-operative Societies' Ordinance was issued in 1931 for the purpose of registration and supervision of the numerous groups already existing, with the result that the cacao of the societies is at a premium. Nigeria has also important societies which are practically co-operative, but as yet no Ordinance. In the French colonies of West Africa — as also in French North Africa — compulsory native thrift societies have been for some time past organised, and in 1931 central and local credit banks were established which will make loans to these societies.

In East Africa, the mandated Territory of Tanganyika possesses a Co-operative Societies' Ordinance, framed in accordance with the advice given by the writer during his visit in 1931. The Kilimanjaro Native Coffee Growers' Association founded in 1925 has re-organised and registered under this measure. Kenya has also recently passed a

Co-operative Ordinance, but in the writer's opinion the terms are not well suited to Africans (1). In Madagascar legislation was enacted in 1930 with the object of founding a central bank and local credit societies. The Protectorate of Zanzibar has resolved on a co-operative policy, largely for the assistance of the small Swahili cultivator who is indebted, and an administrative officer has been deputed to study co-operation in certain parts of Europe and Asia.

Of great interest is the effort made by the Bantu population of the Transkei Territories in the direction of self-help and mutual help. The primary object of the native leaders was to reduce indebtedness to local—mainly European—traders. The remedy of co-operative credit was strongly urged by a Catholic missionary, the Principal of a Native Training College, and with his assistance the Native Council from 1926 onwards has promoted the formation of co-operative credit societies. By the end of 1931 there were 35 such societies with 3,300 members and deposits amounting to £ 10,000. The funds are derived entirely from native sources. Sale of produce and purchase of requirements are also carried out through the societies. A closer organisation is becoming essential, and a draft Ordinance has been submitted by the Native Council of the Transkei Territories to the Union Government.

Mr. Strickland again emphasises, in the chapters on Finance and Audit and on Supervision, the necessity for the appointment of specially qualified Registrars so that this important work should not fall on the already hardworked Native Councils or District Officers.

A valuable section of this co-operative " vademecum " contains draft or model rules for co-operative societies, by-laws for a co-operative Thrift and Loan Society, as Sale Society, and a Better Living Society. The final chapter takes the suggestive form of an imaginary address on the advantages of co-operation made by an organiser to a group of African villagers].

C. H.

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(1) Previous list September 1933. To be continued March 1934.

(2) List of abbreviations: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); hebdom. (weekly); int. (home price); irr. (irregular); mens. (monthly); n° (number); N. S. (new series); q. (daily); sem. (half yearly); s. (series); trihebd. (every three weeks); v. (volume); trim. (quarterly).

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